

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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RICHARD H. EDMONDS, President.
FRANK GOULD, Vice-President.
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I. S. FIELD, Secretary.

RICHARD H. EDMONDS,
Editor and General Manager.

EDWARD INGLE, Managing Editor.

ALBERT PHENIS,
General Staff Correspondent.

Branch Offices:

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New York—52 Broadway.
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BALTIMORE, JUNE 2, 1910.

GLENN H. CURTISS.

The ten thousand dollars awarded Glenn H. Curtiss for his feat of covering in a biplane 150 miles in two hours and forty-six minutes are as nothing compared with the plaudits of his fellow-citizens, whose vision of the possibilities in aviation he has widened beyond calculation.

THE AMERICAN IRON AND STEEL INSTITUTE.

"The time has gone by for destructive competition in business," is a thought very brilliantly and vigorously presented by Judge Gary, Chairman of the United States Steel Corporation, in an address at the banquet of the American Iron and Steel Institute on Friday last. As an outgrowth of the dinner given by Judge Gary to the independent iron and steel men of the country following the panic of 1907, the American Iron and Steel Institute was organized. Its annual election of officers, followed by a dinner to the members, was held last week. At the dinner were most of the leaders in the great iron and steel industry of America. They represented the iron and steel trade of this country, which means one-half of the world's iron industry. As the dominating force in this, the greatest single manufacturing industry in the world, the men at that dinner recognized the responsibility resting upon them as individual leaders in these vast enterprises, as well as the responsibility which the American Iron and Steel Institute must inevitably assume before the world. It is interesting, therefore, that with a

full recognition of these facts, the chief topic of discussion looked to the betterment of labor conditions, to the feasibility of a reduction of the hours of work and to the lessening of Sunday work. Vice-President Dickson of the Corporation very clearly emphasized his belief in the feasibility of a six-day week for the working people connected with the iron and steel industry, and strongly urged that this matter should be given the most careful study by the members of the institute. That it is a complex problem, far more difficult of solution than would seem to those not familiar with all the intricacies of iron and steel making, was fully appreciated, but the spirit of the discussion, taking an even broader range than the labor question, found expression in the statement quoted from Judge Gary's address.

Prior to the panic of 1907 the iron and steel industry of this country, like many other industries, had comparatively little community of interest. The great leaders in it, instead of being in friendly competition, were generally in bitter rivalry. There was a general sentiment that every man must look out for himself, and the devil take the hindmost. Under the leadership of Judge Gary, beginning with the first dinner given to the independent steel people, a great change has been brought about. Men have come into close personal touch with each other; they have learned to know each other intimately; they have learned to appreciate the fact that each man's interest is best served by the broadest prosperity of all; they have learned that cut-throat competition, or, as Judge Gary puts it, "destructive competition," must be a thing of the past. This is demanded by the best interests of business as well as by ethics. The influence of what has been accomplished in this particular in the iron and steel trade will necessarily extend to other industries and broaden out to the world. Competition in business will probably exist so long as men live and do business, but there is a vast difference between a strong, vigorous, friendly competition and the bitter, destructive kind which thrives by tearing down. Judge Gary takes the ground that, while ethically right, a co-operative spirit for the upbuilding of any great industry to the benefit of all is infinitely wiser and better for all than killing competition.

The American Iron and Steel Institute, now fully launched, will doubtless prove the greatest association of the kind in the world. It will probably be conducted along somewhat broader lines than the British Iron and Steel Institute. The latter has been one of the most representative organizations in existence, due, in part, to wise management and to the character of the men identified with it, but largely to the fact that for many years Great Britain was the leader in the world's iron and steel industry. As the United States not only outranks any other one country, but controls about half of the

world's iron and steel industry, the American Iron and Steel Institute should rapidly take rank as the leader of all similar bodies. Its influence will be very far-reaching. Its members represent an industry in which \$2,000,000,000 is invested. They are men accustomed to think, to act and to do things on a broad scale. They recognize their responsibility. In all the business affairs of this country the influence of their work will be felt. What they do will help to mold and shape the destiny of the business interests of the United States, and possibly out of their deliberations will come very many wise movements bearing on the relation of capital and labor.

SAVINGS BANKS LOANS.

In a discussion of an opinion among the banking institutions that loanable funds are scarce in this city, and referring to the fact that not a savings bank in Maryland bid upon recent offers of stock by the State of Maryland and the City of Baltimore, *Hambleton's Circular* says:

Now, our savings banks are the biggest financial institutions in our city. The two largest have aggregate deposits of more than \$50,000,000. These deposits are gathered from the savings of all classes, and, of course, have to be invested. Now, where are these deposits invested? In Baltimore? Not to any great extent. In the State of Maryland, outside of Baltimore? Very little, indeed. They are scattered in investments representing property from Maine to Mexico. Can a banker or a broker borrow money from these great savings institutions even on such securities as these savings banks purchase for themselves? Not at all. There is no money to be had from our savings banks on collateral. Perhaps it might be said that it would not be prudent for the savings banks to loan on collateral. We ask—Why not? If these banks would confine the security for loans made to the class of collaterals which they are willing to purchase, they would have a better and more liquid asset than in their own securities, for, in addition to the security of the signer of the note, they would have a margin of 20 per cent. on the securities pledged.

Are not our banking institutions, especially savings banks, open to criticism for their lack of interest in home affairs?

It is perfectly true, as *Hambleton's Circular* says, that Baltimore capital should encourage and assist home enterprises and home industry first. But such a suggestion has only an indirect bearing upon the investments made by savings banks. The fundamental purpose of the leading savings banks of the city is not the encouragement and assistance of home enterprises and industries, but the safeguarding in liquid form of the savings of probably 200,000 people, involving, of course, a remunerative use of such savings. The purpose of savings banks is not to assist the operations of bankers or brokers. In scattering investments from Maine to Mexico, the savings banks of Baltimore are conferring a distinct favor upon their depositors. They are avoiding the danger, that every wise mind avoids when possible in all undertakings, of not having all of one's eggs in one basket. May it not be that, because in

some lines of finance in Baltimore there has been in recent years too much propensity to assemble eggs in that manner, wise managements of savings institutions, bound to protect their depositors, are shy of a few lines of local eggs that some bankers and brokers may regard as first-class securities? Then, again, has not the management of municipal finances in the past few years been tinged rather by the influence of academic theory lacking practical business acumen? Has there not been, also, in the same period, too great readiness on the part of organs of public opinion to become the mediums of drives against the stability of savings banks, inspired by recognized crudes or theorists who apparently believe that a savings bank should be operated upon the lines of the stock broker's office?

Before criticizing the local savings banks, *Hambleton's Circular* might do well to elaborate its own thought that "If other localities are presenting more attractive loans than can our own people, the banks are not to be criticized for accepting them." In the main, investments in Baltimore and Maryland are of the most substantial character. But that is no reason why savings banks should be called upon to assist the financial undertakings of bankers or brokers, which are not necessarily connected with industrial upbuilding.

OUTSIDE CAPITAL FOR THE SOUTH.

Occasionally one hears from some man or paper in the South the suggestion that this section does not need to look elsewhere for capital. Such an expression necessarily comes from persons not well informed as to the development of this, or other countries, or to the needs for capital. No other region in America, probably no other in the world, offers a greater field for the investment of outside capital to the benefit of the South and to the profit of the capital. The development of the United States, the building of its railroads, the creation of its great wealth, have all been made possible by the investment of foreign capital in this country. Some years ago English capital poured into all parts of the United States, the South included, with a great rush. It fertilized many a desert spot, and made it to bloom with prosperity. But for a good many years English capital has been shy of this country, and strenuous efforts are being made by American financial interests to tap other sources of supply in France and elsewhere. The *Financial Times* of London of May 9th, in discussing this situation, pointed out that many of the railways of America and many of the most important and most prosperous of its industrial combinations depend upon the continued development of the country's resources and of its transportation facilities, and this, in turn, depends upon the provision of an enormous capital. The capital of this country, says the *Times*, so far as it was available,

has long ago been used up, and deals must now be based upon foreign money, and unless that is forthcoming in very large quantities, the development of America must be checked. "Under these circumstances," says the *Times*, "it is unfortunate that the old sources of capital supply have dried up." The reason given for this drying up is that the Americans unloaded on the English bad securities, and thus created in Great Britain a shyness which still continues. The *Times* expresses it by saying: "The Americans scored over the foreigners who invested in their securities every time." This is, unfortunately, too true. At the time when English capital was seeking investment in America in such vast quantity, many a rotten enterprise was floated upon the English people, and as a country we are still paying the penalty. Even though there may be less of this dishonesty now prevalent, and though the issuing of securities may be more wisely safeguarded than in former times, the sharp practices of the past are still proving a curse to us.

"The British investor becomes so very cautious when once his suspicions are aroused," applies not only to the British, but to all other investors—American and Continental, as well as British. The *Times*, reviewing the situation, says:

This makes the appeal of the Americans for French capital doubtful of success, and, as we have shown, if the appeal does not succeed, a serious situation will arise. * * * It is scarcely an exaggeration to say that American financiers are flocking to Paris. * * * Let us call attention to the fact that recently over \$100,000,000 of American railroad securities have been placed in France, but this is a very small proportion of what is needed. Moreover, there is another menace to the United States in its efforts to secure foreign capital in the improvement of Canada's credit, which is now appealing strongly and to a considerable extent successfully for English capital to develop its great resources.

As the United States is so largely dependent for foreign capital with which to develop its railroads and its industrial interests, notwithstanding its own vast wealth (for its surplus capital does not begin to equal its needs), so the South needs to secure capital from the North and West, as well as from Europe, to carry on its development. Its increase in wealth in the next half century would no more make it independent of outside capital than is the United States today independent of foreign capital. Without a great influx of capital from other sections and from Europe, Southern development will necessarily be seriously halted, and its vast resources remain undeveloped except to a limited extent. It behoves the people of the South to recognize this situation. Every developing country in the world is competing for the surplus capital of the world. The opportunities for investment are limitless in all the rapidly-developing regions of the earth. Neither the South nor the United States can claim any monopoly of these opportunities, nor have they any call on the world's capital, unless they can present more inviting opportunities than other sections, and certainly equal assurance of the amplest protection. Capital seeks not only a promising field for earnings, but it seeks the assurance of being absolutely safeguarded. It has a right to this. If the South wants to secure capital, and the fructifying influence which capital brings to the business life of a section, it will necessarily be compelled to meet the terms demanded by the capitalist. He cannot be forced against his will to put his money into the South or into any other section.

Wherever this capital goes in great quantity, it proves to the parched desert of business inactivity, of industrial stagnation, as life-giving as the waters turned by irrigation to the desert lands of the semi-arid regions of the West. If the South wants to make the most of its opportunities, if the men of this generation want to see the benefit of universal prosperity and broad business development, they must realize the dependence of this section upon outside capital, exactly as the United States must depend upon foreign capital. Really, the South's dependence is very much greater, for it has not yet had time to accumulate capital, as has the rest of the country. To secure this capital it must offer opportunities surpassing those of Canada and Mexico and the other regions of the world that are now undergoing development, and it must guarantee absolute protection, so that in opportunity and in safeguarding the money of the outside man it can present a more inviting prospect than any other region on earth. Otherwise, its appeal for capital will be in vain.

DO NOT DISCOURAGE NEW RAILROADS.

In one of the Southern States there is a county which has long been without adequate railroad facilities, but recently circumstances have made it possible to assure the residents of an extension of an existing line, with the probability that within a few years the transportation accommodations would be all that could be expected by them. But scarcely had the company begun preliminary work looking to the building of more track than some of the people along the proposed route asked high prices for the right of way needed through their lands, although others were ready to sell at reasonable figures, while several, it is understood, were willing to donate the required strips, feeling that the building of the road would fully repay them for the gifts.

It is matter for regret that the county in question is not the only region where narrow-minded people are to be found—folks who are not sufficiently wide-awake to their own interests to be able to recognize a benefit when they see it, or to comprehend how the coming of a railroad is likely to be of as much advantage to the people along its line as it is to its owners. In fact, it is not too much to say that a railroad going into a section without transportation facilities immediately confers more benefits to the landowners by increasing the value of their real estate, and also by making it possible for it to be cultivated to greater advantage, than it can expect to receive for a long, long time; it must look to the future for its returns, and it may, at the beginning of operation, actually lose money until sufficient business development ensues to have a profitable effect upon traffic receipts.

The South needs more railroads, and the sooner they are built the better. If capital is encouraged to invest in such construction, being assured of fair treatment by the people whom the lines will serve, a great expansion of transportation facilities will result, business will improve and land values will advance. But if an indifferent or semi-hostile attitude is maintained, capital will hesitate, and construction will be delayed; maybe it will not come about at all. Fortunately, there are some splendidly practical examples being set in different sections, generally in the newer parts of the South, but to some degree in certain parts of the older

States. In such cases bonuses are offered to induce the building of railroads. Sometimes these offers are cash subscriptions or in bonds; again, they are in right of way, sites for yards, depots and terminals, the residents appreciating the worth of transportation facilities, and feeling ready to make advances which will secure them. Often the movement to obtain a railroad is started by the people of one or more towns or counties, and if the desired enterprise is induced to come, the beginning of construction is made an occasion for rejoicing.

Such public spirit should be cultivated by everyone; it redounds to the advantage of all, but the breadth of view necessary to its development is too frequently hindered in some quarters by a restricted environment, although lack of this mental essential is less excusable nowadays than it once was, when the printed page was not at everyone's command and ignorance, such as is now scarce, was not uncommon. A little more mingling with one's fellows, a little more looking out upon the rest of the world, will incline to remove that disposition of mind which endeavors to realize the immediate profit to its full, even if that course imperils a much greater yield to follow a broader attitude. There have been signs of a gradual improvement in this direction even since the year immediately following the last panic, but the old spirit of antagonism to corporations is not yet invisible. In the newer sections, where railroads are in demand, the broad view prevails, and it is to be earnestly desired that all other and older regions will become equally alive to the advantages of attracting capital, because of the general, as well as the particular, benefits its advent will confer.

FOR PUBLICITY.

From two widely-separated localities the MANUFACTURERS' RECORD received this week letters written on the same day indicating its value to seekers for information. Mayor William H. Jewell of Orlando, Fla., writes:

The value of the MANUFACTURERS' RECORD as an advertising medium is well evinced by the avalanche of letters the Mayor of Orlando has been and still is receiving since your little item in the MANUFACTURERS' RECORD—that Orlando was considering the advisability of putting in or buying municipal plants, etc. Let me say collectively to these many propositions to furnish our city with water, electrical and other similar facilities that Orlando is not ready for any propositions on these lines. They are now only under advisement. When and if we do undertake these things due notice will no doubt be given, and it would seem that no better channel could be found than the MANUFACTURERS' RECORD.

The second letter came from the Twenty-Five Thousand Club of Abilene, Tex., O. P. Thomas, secretary. He referred from F. K. Lashbrook, secretary of the Rhodes Realty Co. of Earle, Ark., the following:

We notice that you have an ad. inserted in the MANUFACTURERS' RECORD of Baltimore for factory locations. We are thinking of advertising for the same thing, and would like to ask you if the MANUFACTURERS' RECORD is a good medium. Do you get many replies from your ad?

In reply, Mr. Thomas wrote, and sent us a copy of his letter:

Beg to advise that our organization is well pleased with the results obtained from this ad. they have been carrying for some time with the MANUFACTURERS' RECORD. In fact, we have received several hundred answers to this ad. and find that no other periodical patronized so far has kept us in as close and regular touch with the owners of investment capital for factory and industrial enterprises as the MANUFACTURERS' RECORD.

DANGERS IN IMMIGRATION.

In advocacy of the dangerous plan of participation by the Federal Government in the distribution of immigrants, Ormsby McHarg said before the recent meeting of the National Association of Manufacturers:

If the evil of congestion in the cities could be confined to those responsible therefor, it would be a comparatively simple matter to eradicate it; but, as a matter of fact, no treatment can be prescribed for the immigrant unless he is dealt with in his alien capacity—that is not accorded our native people. The Federal Government is the only power that can handle this subject of immigration and say who shall come in and where they shall go during their period of alienage. The Federal Government has a manifest duty with respect to immigration, and I say this mindful of the nature of the organization of the Federal and State governments and of the relation of each to the other.

If the integrity of the American people is to be maintained, the thought that the Federal Government shall be permitted to say where immigrants shall go must be dismissed from consideration. The evils of congestion of aliens in three or four large, great cities are a consequence of the desire of aliens, whatever their occupations in their native land, to live in the cities. Attempt by the Federal Government to relieve this congestion can, under existing conditions, result only in creating in many cities other centers of the evils. The mass of immigrants that have been swarming into the United States in recent years do not propose to go to the rural districts of this country. A report of a special committee of the National Association of Manufacturers estimates that probably a majority of the aliens coming to this country in the fiscal year 1909 were originally from country districts, but it adds:

Despite the evidence thus given of the original occupation of a large part of the immigrants, we find that only a small part of them engaged here in agriculture. Of the 94,235 aliens admitted, 266,604 gave New York as their place of intended residence, 13,176 named Pennsylvania, 73,176 Illinois, 72,493 Massachusetts and 50,394 New Jersey, a total of 597,176 in these four States. Of the remainder, States with large cities and large mining and manufacturing interests, Michigan, Ohio and Connecticut, received a large part. Of the agricultural States, California, Texas, Washington, Minnesota and Wisconsin attracted considerable numbers, but Kansas received only 3,433, Iowa 6,238, the Dakotas together 6,723, while of the Southern States South Carolina obtained only 254, and Alabama, Arkansas, Georgia, Kentucky, Mississippi, North Carolina and Tennessee not many more each.

In the light of this exhibit it is not surprising that this special committee discovered that the so-called division of information in the Bureau of Immigration, unwise created in 1907 with a chief purpose of directing immigrants to agricultural pursuits, had, during the first 15 months of its operation but 5,008 applicants, and of that small number directed but 2,565 immigrants, or less than one-half of 1 per cent. of the total immigration to this country in that period.

A beginning of reform in immigration should be made by abolishing the division of information. With that out of the way, the national thought should concentrate upon limiting the direct activities of the Federal Government to a decision through Congress as to the character of immigration to be admitted. The alien contract labor law should then be amended so as to permit a recognized official of each State to select in foreign lands the class of immigrants needed in each State, and

to place them where they may do the most good.

As the situation is now, party politics appealing to great masses of unassimilable aliens congested in two or three large cities is far too influential in the treatment of the immigration question under Federal auspices. This mixture of politics with questions of race or religion, and not entirely divorced from international diplomacy, is one of the great menaces of American life today. Its enormity is recognized in the fact that a Presidential election may turn upon the vote of a district on New York city's East Side, reeking with the evils of alien congestion.

ACTIVITY IN SOUTHERN INDUSTRIAL DEVELOPMENT.

The MANUFACTURERS' RECORD has published since January 1 a total of 22,583 items bearing upon industrial and other developmental plans in the South. The wide range and comprehensiveness of the news thus published is shown in the following condensed statistical statement:

Synopsis of Construction Department, MANUFACTURERS' RECORD, covering the months of January, February, March, April and May, 1910.

Total of Items to June 1.....	22,583
Construction.....	18,724
Machinery, Proposals and Supplies Wanted.....	3,111
Burned, etc.....	748

January, February, March and April items previously detailed.

May items divided in detail as follows:

Bridges, Culverts, Viaducts.....	67
Canning and Packing Plants.....	23
Clayworking Plants.....	34
Coal Mines and Coke Ovens.....	56
Concrete and Cement Plants.....	11
Cotton Compresses and Gins.....	52
Cottonseed-oil Mills.....	20
Drainage and Irrigation Systems.....	20
Electric-light and Power Plants.....	96
Fertilizer Factories.....	14
Flour, Feed and Meal Mills.....	28
Foundry and Machine Plants.....	42
Gas and Oil Developments.....	62
Ice and Cold-storage Plants.....	31
Iron and Steel Plants.....	4
Land Developments.....	139
Lumber-manufacturing Plants.....	137
Metal-working Plants.....	15
Mining.....	58
Miscellaneous Construction Work.....	43
Miscellaneous Enterprises.....	185
Miscellaneous Manufacturing Plants.....	226
Mailway Shops, Terminals, Roundhouses, etc.....	15
Road and Street Improvements.....	196
Sewer Construction.....	79
Telephone Systems.....	58
Textile Mills.....	43
Water-works.....	116
Woodworking Plants.....	47

Railways.	
Steam.....	224
Street.....	15

Buildings.	
Apartment-houses.....	68
Association and Fraternal.....	45
Bank and Office.....	157
Churches.....	157
Courthouses.....	22
Dwellings.....	404
Government and State.....	40
Hotels.....	64
Miscellaneous Structures.....	573
Municipal.....	52
Railway Stations.....	39
Schools.....	284
Theaters.....	29
Warehouses.....	62
Burned, etc.....	144
Machinery, Proposals and Supplies Wanted.....	575

The list of Machinery, Proposals and Supplies Wanted contains 26 foreign wants, the countries represented including New Mexico, Panama, Argentina, Spain, Italy, Germany, Hungary, Russia, Africa and India.

"ON SUCCESS AVENUE."

Mr. John F. Cox of Lakeland, Fla., tells us that he lives on Success Avenue, and gives us credit for it. In renewing his subscription, he writes:

I am glad that I have not missed a single copy of the paper. You are doing good work for me and every other citizen of the South in every issue, and I appreciate it.

I live on Success Avenue in Dixie Land, and I get my inspiration and incentive for better work out of the MANUFACTURERS' RECORD.

What thousands of men are living on the same boulevard, and how many of

them look to the same source of inspiration? We dare not undertake the census of them. We know that Success Avenue in the South was almost uninhabited about 28 years ago, when we began to look into the situation. It was inviting, but the way to it was difficult and tedious. There were all sorts of obstacles that men of this day and generation may hardly comprehend, even when their own fathers tell them of them. But the fathers were men of fine spirit, great courage and lofty imagination. They knew that the avenue was accessible, if not by themselves, certainly by others following their pioneer tracks and widening the way for those that were to come after. They were quick to read, mark, learn and inwardly digest the signs of the times, and to heed the voices of heralds calling them to the front. Some of them, happily, reached their goal and took up their permanent residence. Many others had to be content to quit their journey prematurely, but their strivings were to the advantage of thousands of younger men who have succeeded.

Yet, Success Avenue in Dixie Land is by no means crowded. There is plenty of room for thousands of other men in the highways and byways leading to it, and elbow room for them on the main thoroughfare, where there are sites available for homes even more desirable than those that have already been occupied.

We are glad to know that residents like Mr. Cox of Lakeland are not satisfied to drone out days of luxurious ease, but continue to look to the MANUFACTURERS' RECORD for suggestions as to the bettering of conditions for themselves and others. They are the right sorts of folks to live on Success Avenue anywhere. They have the correct view of achievement as a fitting for greater attainment and of the MANUFACTURERS' RECORD as the medium, with its thousand advertisers and weekly thousand pointers in its Construction Department and general news and editorial columns to opportunities of most varied kinds, calling to men of nerve and energy in the use of capital of mind, muscle and money for increasing the number of their neighbors.

Are you living on Success Avenue? Is your home as fine as you want? Have you achieved for yourself and your section all you desire to accomplish? If not, then follow the example of Mr. Cox. He has found the inspiration that enables him to do things.

AMERICA IN CHINA.

Of wide interest as indicating the opportunities for American enterprise in China is the fact that in the Chinese Bureau of Engraving and Printing at Peking, of which Milburn & Heister of Washington are the architects, the firm of Manning, Maxwell & Moore of New York is installing machinery at a cost of \$200,000.

Mr. George H. Swift, a representative of the latter firm, has been several months in China, and has secured orders as follows: For the Peking-Kalgan Railway, three Lima locomotives, four Baldwin compounds and two Baldwin suburbans, and also a complete equipment for the Nankou shops; for the Chang-Sui extension of the same line a similar shop equipment at Kalgan, a complete American pile-driving equipment and iron bridges; for the Szechwan-Ichang Railway, equipment for a power plant at Ichang, and for the Lo-Ting Railway a pile-driving equipment, switchstands, crossings and other machinery. The total of these sales approximates \$750,000.

Steel Industry and Six Days a Week Labor.*

By W. B. DICKSON, First Vice-President United States Steel Corporation.

The Iron and Steel Institute, usually known as the "British Iron and Steel Institute," by common consent has hitherto been regarded as the leading exponent of all matters (other than commercial) of interest to the iron and steel industry.

This position of leadership was natural and well deserved, owing to the fact that Great Britain was for so long the largest producer of iron and steel products. Conditions, however, have changed in recent years, Great Britain being outstripped in the race first by the United States and later by Germany.

We now have a large lead, and it is safe to assume that our natural resources, our growing population and our vast territory will enable us to maintain our position as leader for many years. By analogy, the recently-formed American Iron and Steel Institute, which we tonight represent, should, in the course of time, assume an important, if not pre-eminent, place in the development of this industry.

This it can and should do, not in any ungenerous spirit of rivalry with our brethren across the sea, but because the changed conditions have placed within its sphere of influence large questions affecting our industry, which must be solved, if solved at all, by the united wisdom of American iron and steel manufacturers.

It is manifest, therefore, that on you gentlemen, who are the incorporators and directors of the Institute, devolves an important and far-reaching duty in determining the scope of the work of the Institute and the policies to be pursued.

I am informed that the subjects which are permitted to come before the British Iron and Steel Institute have been limited in the main to technical and scientific questions, special care being taken to avoid discussion of commercial questions. Whether or not this same policy will be pursued by this Institute, of course, will be decided by the directors.

In addressing you tonight, however, I am assuming that a broader policy will be outlined which will include not only commercial, but sociological questions as well.

It is not my purpose to discuss, or even to suggest, all the matters deserving of your attention; in fact, I desire to present only one question, but that, in my judgment, is of such paramount importance to the future welfare of the trade that it is deserving of your immediate and earnest thought.

This question is a phase of the relations between the manufacturer and the employee. I am quite aware of the difficulties surrounding a discussion of this subject, but, nevertheless, believe it presents questions which must be faced, and that soon, and it is the American way to meet difficulties openly.

As you are aware, the United States Steel Corporation has recently taken some advanced steps in matters vitally affecting the relations between our various companies and their employees, namely:

The Reduction of Seven-Day Labor to a Minimum.

The Establishment of a System of Accident and Accidental Death Relief.

The Establishment of a Pension System.

In considering the first named, i. e., the question of a seven-day week, we were, of course, met at the outset by the difficulty of adjusting a six-day week to the operations which are necessarily continuous and which are generally so recognized, even by the most radical opponents of the seven-day week. This refers particularly to such departments as the blast furnaces.

*An address before the American Iron and Steel Institute.

The Corporation has not yet been able to devise a practical working system by which the men employed at these continuous operations can be given one day off in seven, and the purpose of this paper is to invite the co-operation of other companies operating blast furnaces, with a view to devising some workable plan.

In this connection I may state that, as recently reported in the press, Mr. Schwab has very properly protested against the Government officials singling out his company for criticism on this point, as the practices at Bethlehem which were criticized are common to all blast-furnace plants.

The tendency of the times is plainly in the direction of some measure of regulation by the public authorities, both State and Federal, of the conditions under which workingmen are employed.

The most striking evidences of this trend are the two employers' liability bills recently introduced in the New York Legislature, one of which has been passed and is now before the Governor;* the signing by Governor Harmon of Ohio on the 12th inst. of a drastic and far-reaching employers' liability law; the recent appointment by Governor Fort of New Jersey of a commission to recommend similar legislation to the next Legislature of New Jersey, and the amendment of the bill for the building of two battleships and other vessels, providing that all material used shall be the product of eight-hour labor.

This amendment was introduced by Mr. Fitzgerald of New York, and has passed the House and is now before the Senate. (This amendment passed in the Senate also.)* Whether or not the amendment finally prevails, I think you will agree with me that the fact that the House, which is pre-eminently the representative body, has passed it indicates the attitude of the American people on this question of hours of labor.

Shall we endeavor to pass through these troubled waters "under power," with sufficient headway to insure steerage way, or shall we be satisfied to drift, taking our chances of disaster on the sunken rocks of radical and ill-advised legislation.

True conservatism consists not in standing still and attempting to ignore public sentiment, but rather in adjusting our method of operating to meet the changing conditions of our times.

We will thus take the place in the body politic to which our intelligence and experience entitles us, and give powerful aid in the difficult task of solving these pressing problems on a reasonable basis which will be fair to all of the interests involved.

It is my own deliberate judgment, after a period of almost 30 years' continuous connection with the industry, the early part of which was passed in manual labor in the mills, that the present conditions which necessitate the employment of the same individual workman 12 hours a day for seven days a week are a reproach to our great industry, and should not in this enlightened age be longer tolerated.

I therefore urge upon the directors of the Institute the appointment of a committee to consider this question and devise a workable plan which can be recommended to all companies, whereby no individual shall be on duty for more than six consecutive days.

I urge this—

First—Because it is the right thing to do, and is in line with the spirit of the age in which we live, and I am confident that these are sufficient reasons to insure its

*This bill has since been signed by Governor Hughes.

being done. If, however, any further reason should be necessary, in my judgment we have the conclusive one that if we do not do it voluntarily, we will in the near future probably be compelled to do it by the passage of legislation by the various State Legislatures which may be so radical as to create a serious situation for the entire iron and steel industry.

GAS AND OIL THE AGENTS.

Spur Given to the Development of Weston.

[Special Cor. Manufacturers' Record.]

Weston, W. Va., May 21.

This old town has lately awakened to the spirit of progress, and is now growing and expanding, taking on new importance and giving promise of becoming one of the principal commercial points of central West Virginia. For a hundred years the chief trading point in a productive agricultural section, surrounded by fine farms, with farmers and stock growers whose thrift was proverbial throughout the section, Weston seemed satisfied to pursue the simple life of the typical rural town, content to let other communities hustle for supremacy. But of late a new impulse has seized upon the people, the old-time lethargy has been shaken off, new ideas have taken the place of the old, and from the sleepy town of yesterday has sprung a thriving, bustling, progressive young city of the today that does things.

Much of this spirit was developed by reason of the oil and gas development of the last few years. For 10 or 12 years there has been a great deal of drilling throughout this (Lewis) county for oil, and some big strikes have been made. The greatest of these was the Copley well of 10 years ago, that flowed for a time at the rate of 3000 barrels a day. That, however, did not last very long, but it created a great rush while it did last. Many other strikes of less magnitude, but probably more permanent importance, have been made since, and the production of oil has reached a very considerable aggregate. Latterly, however, the oil production has been overshadowed in importance by the great gas wells struck in various parts of the county, and now gas territory is the one object for which all those with a penchant for such speculative business seem to strive. The consequence is that there are very few acres of land in the county that have not been leased by some company or some individual for the purpose of drilling for gas. Several big gas companies have laid pipe lines from this field to the big consuming cities, and hundreds of millions of feet are now being taken to Cleveland, Pittsburgh, Wheeling and other markets. A line is being laid to the east also, and before long Baltimore, Washington, Philadelphia and other of the Atlantic points will be heating and illuminating their homes, firing their boilers and creating the power for their manufacturing plants with gas found beneath Lewis county soil.

The effect of all this gas production and promise of production is felt in every circle of life and business here. With practically every acre of land in the county producing revenue for its owners by way of rental—paying a yearly rental average of \$1 per acre without the outlay of a cent—it can readily be seen that the people generally have money; that the banks of the principal city are bursting with deposits, and that before long manufacturing and other enterprises must spring up to absorb the money that will otherwise be allowed to accumulate in idleness. For the present the possession of this great wealth is being shown in handsome new residences, both in town and country; in improved farms; in better stock; in renewed farming implements, and in the

hundred other things that naturally demand early attention from an agricultural community finding itself suddenly and unexpectedly enriched beyond all of its former dreams.

Nor are all these manufacturing institutions hidden in the future. Some have already come to Weston. Among these is the Crescent Glass Co.'s big plant, employing 250 people in the manufacture of window glass. This is said to be one of the most complete plants in existence, being thoroughly up to date in every particular.

The Bastow Manufacturing Co. has a plant for manufacturing glass tableware of all kinds, and, while not employing as many people as the Crescent, has a large payroll, and is enjoying a prosperous career.

The Danser Manufacturing Co. has big foundry and machine shops here, and does a general manufacturing and repair business in that line, as well as handling oil well supplies of all kinds. This concern does a great deal of business with the oil and gas people throughout this district, as well as with a large number of sawmills in a number of surrounding counties.

There are several planing mills and general woodworking institutions in the city, chief among them being that of the Weston Lumber Co., which has a plant containing seven acres of floor space.

A large brick plant, belonging to George I. Keener, makes a fine quality of brick, which is used here and in many neighboring places.

The Weston Mill Co., owning the well-known Weston Flouring Mills, makes a high-grade flour, and does a general milling business.

The Monarch Tile Co. a few years ago erected a plant here for the purpose of making glass tiling of various kinds, but owing to internal dissensions has not pursued a very satisfactory career. The output of this institution was of a very high grade, and it is hoped the differences of the owners may be composed and the plant again set to work.

In addition to these things there are many smaller manufacturing establishments, none of very great individual importance, but forming in the aggregate a very important part of the city's business activity.

The tremendous gas output will undoubtedly be the means of bringing many other factories of importance to the city, and observant people who are cognizant of the city's advantages look forward with confidence to the time in the near future when this will be an important manufacturing center.

At present the only railroad outlet is furnished by the Richwood branch of the Baltimore & Ohio Railroad and the Buckhannon and Pickens branch of the same great system, but the transportation problem is pretty well solved as it is, for the main line of the Baltimore & Ohio is but 20 miles away, at Clarksburg, and the train service is constant and convenient. This is to be augmented soon by a traction line from here to Clarksburg, whence it already extends to Fairmont. The City Council at its last meeting, held last week, granted the right of way through the streets to J. O. Watson, who takes it for the Fairmont & Clarksburg Traction Co. The line will ultimately be extended from here to Buckhannon, a distance of some 15 miles, and that through a prosperous farming section.

The West Virginia Hospital for the Insane is located here, and is one of the State's largest institutions. Its erection was begun by the State of Virginia before the division, and the plan then adopted was carried out by the new State in completing the building. This structure has a main building four stories in height, from which

it grades down on either side to three, two and one-story buildings. The total length is almost exactly a quarter of a mile. It is built of native stone, and is a handsome and imposing edifice. It now houses about 1000 of the State's unfortunate, and is managed and controlled by an army of employees that brings the total of its occupants up to a very considerable number.

The city itself has a system of paved streets that covers almost its entire mileage of thoroughfares, excellent sewerage, good lights, both gas and electric, and not a dollar of bonded indebtedness. It has long enjoyed an excellent school system, has many handsome churches and an unusual number of attractive homes.

The surrounding country is inhabited by thrifty farmers and stock growers, who find the land admirably adapted to their wants. Bluegrass is indigenous to the soil, coming up of itself to a strong set whenever the underbrush is cut away to let the sun strike the ground. In horses, cattle and sheep the county stands second in the State, being surpassed by none but its neighbor, Harrison. These things of themselves will prove the source of inexhaustible riches to Weston long after the gas and oil, which now yield such abundant wealth, have been exhausted.

GEORGE BYRNE.

REFRIGERATION.

Far-reaching Objects of the American Association.

The objects of the American Association of Refrigeration, which recently held its first annual meeting at New York, are:

To encourage educational and general progress in the refrigerating and ice industries.

To promote scientific study and discussion of reports and documents relative to the production and utilization of ice and mechanical refrigeration.

To institute investigations, experiments and tests for the purpose of demonstrating correct solutions of scientific, technical and industrial problems pertaining to the art of refrigeration.

To exert protective influence where restrictive or harmful legislation affects legitimate industrial and commercial interests employing refrigeration.

To inspire confidence in the public mind and appreciation of the beneficial effects of refrigeration upon perishable food products, both in transit and when stored for the purpose of conservation, by collecting and disseminating authentic information on the subject.

To encourage the expansion of American trade, commerce and transportation of perishable agricultural products and to assist the commercial and industrial interests affected by mechanical refrigeration both at home and abroad.

To further its purposes and extend its influence by publications, meetings, conferences and courses of lectures and by encouraging the introduction in educational institutions of regular courses in refrigeration.

To promote the establishment and maintenance of community interests among societies and associations interested in refrigeration, and among its individual members.

To co-operate with the International Association of Refrigeration in the organization of international commissions for the discussion of questions of international import, and in the determination of correct basic data pertaining to the art of refrigeration, to be presented at proposed international congresses for adoption.

To secure such American participation and such representation in future international congresses of refrigeration as shall be commensurate with the importance of the industry in this country.

The association will urge the passage of a resolution by Congress authorizing the President to extend an official invitation to the International Congress of Refrigeration to hold its 1911 meeting in the United States.

The officers of the association are Frank D. La Lanne of Philadelphia, honorary president; Theo. O. Vilter of Milwaukee, president; W. D. Hoard of Fort Atkinson, Wis.; E. P. McCormick of San Francisco; Charles Rohe of New York city, Jacob Ruppert, Jr., of New York city, Thomas Shipley of York, Pa.; W. J. Rushton of Birmingham, Ala., and John E. Starr of New York city, vice-presidents; J. F. Nickerson of Chicago, secretary, and John Field of Chicago, treasurer.

Hardware Manufacturers.

At the eighteenth annual convention of the American Hardware Manufacturers' Association next week addresses will be made by Arthur E. Crockett, general manager Standard Chain Co., Pittsburgh, on recent developments in employers' liability insurance; by Fayette R. Plumb of Fayette R. Plumb, Inc., Philadelphia, on assistance by the manufacturer to jobbers in increasing sales of the manufacturers' line, and by Congressman Duncan E. McKinley of California, on foreign trade. On Tuesday and on Thursday the American Hardware Manufacturers' Association and the Southern Hardware Jobbers' Association will have joint sessions. At the executive session on Wednesday of the American Association President Robert Garland of the Garland Nut & Rivet Co., Pittsburgh, will deliver his annual address, and there will be reports of Secretary-Treasurer F. D. Mitchell of New York; of the auditing committee, G. H. Jantz, American Wringer Co., New York, chairman; membership committee, F. Herbert Smith, Nicholson File Co., Providence, R. I., chairman; entertainment committee, Charles S. Hubbard, Ames Shovel & Tool Co., Beaver Falls, Pa., chairman; grievance committee, Col. R. C. Goodell, Goodell Company, Antrim, N. H., chairman; freight committee, Walter W. Birge, Fayette R. Plumb, Inc., Philadelphia, chairman, and credentials committee, Frank G. Drew, Winchester Repeating Arms Co., New Haven, Conn., chairman.

Concrete in Railroad Work.

In the construction of an 83-mile extension from Cumberland, Md., to Connellsville, Pa., the Western Maryland Railroad will use a large quantity of Portland cement. Involved in this work will be six tunnels aggregating 7200 feet in length, all of which will be lined with concrete; between 30 and 40 bridges, using 10,000 tons of structural steel, the piers and abutments of which will be of concrete; a number of culverts of various sizes, all of which will be of solid concrete construction, and concrete retaining walls along the Casselman and Youghiogheny rivers. It is probable that as much as 250,000 barrels of Portland cement will be required for the entire work. The H. J. Collier Company, Cleveland, O., which has a subcontract for part of the line under the Carter Construction Co. of Chicago, the general contractor for the entire work, has awarded a contract to the Security Lime & Cement Co., Baltimore, for 50,000 barrels of cement to be used on the work between Cumberland and Frostburg, Md.

Chance for Men.

The call for trained workers in the South, steadily becoming stronger, is suggested in an offer by the Westbrook Elevator Co. of Danville, Va., of steady employment at standard wages to 25 first-class machinists who are wanted at once.

COREY: MODEL CITY FROM THE GROUND UP.

[Special Correspondence Manufacturers' Record.]

Birmingham, Ala., May 28.

The vim and the vastness of the Birmingham development are evidenced to an almost amazing degree in the building of the model city of Corey, for in this home place for the workers of the Steel Corporation there will be greater comfort, convenience and even elegance than in any similar city in the country, if not in the world. And not only will Corey be a model city in every respect, but it will be built in record-breaking time. It will come with complete, with Aladdin-like swiftness, and what was a cotton patch at spring time will be a city of wondrous beauty and finish before the months of

will have to have homes, and at the institution of the Steel Corporation officials here local men have undertaken to provide the accommodations required. The United States Steel Corporation was compelled to go into the business of town building when Gary was established, because the location was on an unoccupied sand dune on the shores of Lake Michigan. It has always been the intention of the company to get out of the real estate business as soon as Gary property got into the hands of settlers. A magnificently built city with something like 30,000 population is the Gary of today, so that the enterprise was successful in every way, and a

president and treasurer, and other officers and directors include bankers and leading business and professional men of the city.

A tract of 250 acres, adjoining the city limits of Greater Birmingham and across the road from the Steel & Wire Company's plant, and near the site for the by-product plant and the already completed Harbison-Walker Refractories Co. plant, comprises the first survey. The land had been under option by the Tennessee Coal, Iron & Railroad Co., which has recently added to its holdings over 2000 acres of adjacent valley lands along the railroads, on which to construct additional plants as required. As the city of Corey grows, adjacent lands owned by the Tennessee company will thus be available for townsite purposes, so that the expected ultimate population of 20,000 or 30,000 may be provided for by the pres-

ings, and there are to be cement sidewalks everywhere. The elevations are reserved for the residence sites of the more expensive homes, such as the officials would build, and although the city is marked off in zones, in which prices are governed by the adaptability of the property to the various uses of the purchasers, there is none of the property that has not received the most careful and considerate treatment. It is the intention of the land company to erect model or specimen houses of the various kinds in the several zones as a suggestion to those who build for themselves. And for the cheapest houses and grounds there is the same plan of garden, lawn, shrubbery and playground that will make of even the humblest home a bower of beauty and a perpetual comfort and delight to all the occupants. The welfare of



AT THE ENTRANCE TO COREY.



LAYING PAVEMENT AND TRACKS, COREY.



GRADING GARY AVENUE, COREY.



BUILDING CONCRETE STORM SEWER, COREY.

winter, and it will show at that time a population of fully 8000 souls.

The haste is a necessity. The manner in which the Birmingham people are meeting the necessity is the significant evidence of their alertness, resourcefulness and ability to do things in the biggest, broadest way.

Corey is being built by local men and local money to take care of the people who will work on plants of the United States Steel Corporation, including the new \$4,000,000 plant of the American Steel & Wire Co. and the new by-product coke-oven plant adjoining. Ground has been broken for these enormous plants. The steel and wire buildings will occupy 18 acres, and will employ 1500 or 2000 men. The by-product plant, which will ultimately cost several million dollars, will employ 1000 or 1500 men on construction for 18 months or two years. These people

model city for the army of workers in the steel company's plant at Gary could have been built up in no other way than by the direct intervention of the Steel Corporation.

Here at Birmingham, however, conditions were different, and as soon as the Steel Corporation's local company announced its plans for further development and asked the co-operation of citizens in building a place fit for workmen's homes, the Birmingham people took right hold, and in a most splendid manner. Mr. Robert Jemison, Jr., a young man thoroughly imbued with the Birmingham spirit, who has done notable work in the development enterprises heretofore, such as creating the picturesque Mountain Terrace suburb, for one thing, and being at the head of the Jemison Real Estate & Insurance Co., organized the Corey Land Co. He is

ent town builders whenever occasion requires.

The first thing Mr. Jemison did was to find out all about model town building in this country and in England and Germany as well. He engaged George H. Miller of Boston, a landscape architect of national reputation, to work out a plan for treating the site, which is heavily wooded and gently rolling. This work was gone into with most painstaking care and almost religious zeal and conscientiousness. Every tree that could be saved was protected and made use of to ornament and adorn the plan of boulevard, park and residence lot. Other trees and shrubbery are being planted along the streets and walks. There are broad tree-lined boulevards, winding roadways, plazas and parks, and a civic center where will be grouped the city hall, library and public and municipal build-

ings, and there are to be cement sidewalks everywhere. The elevations are reserved for the residence sites of the more expensive homes, such as the officials would build, and although the city is marked off in zones, in which prices are governed by the adaptability of the property to the various uses of the purchasers, there is none of the property that has not received the most careful and considerate treatment. It is the intention of the land company to erect model or specimen houses of the various kinds in the several zones as a suggestion to those who build for themselves. And for the cheapest houses and grounds there is the same plan of garden, lawn, shrubbery and playground that will make of even the humblest home a bower of beauty and a perpetual comfort and delight to all the occupants. The welfare of

diate and early beneficiary of this comprehensive plan of development, which is really one of the most notable achievements which the United States Steel Corporation, through its subsidiary company, the Tennessee, has brought about in the Birmingham district.

The by-products plant, by furnishing gas to the steel and wire plant, will eliminate all factory smoke and soot, so that Corey will start with the great advantage of clean air, and will be able to live throughout its entire career as a veritable "spotless town."

Contracts have been let for grading and filling to the extent of 186,000 cubic yards; the laying of 20 miles of cement sidewalk; 16 miles of combination curb and gutter; cement construction; a number of miles of cement curb; 10 miles of various diameters storm and sanitary sewers; a number of blocks of vitrified brick paving; about two miles of bitulithic paving; several miles of asphalt-macadam and tarvia pavement, and contracts also cover the erection of several score of typical residences, to cost \$1500 to \$4500 each; the erection of a hotel in the civic center, with 50 rooms and baths, stores, lobby and cafe on the ground floor, and a number of business houses. Considerably more than a million dollars will thus be expended by the land company in laying the foundation for Corey. It will require a year to complete all the plans, but owing to the necessity for providing houses for occupancy at the earliest moment, a large portion of the work must be completed within 60 days. A marvelous amount of work has already been completed. Over half of the grading has been finished and nearly half the sewers are in. A good start has been made with the curbing and guttering also, and the work of laying concrete sidewalks. Every contractor is under a heavy penalty bond to complete his work within four months' time. The consequence of this activity is that the townsite of Corey looks like the camp of a good-sized army, and seeing what is being done, it is easy to believe that here will be brought into being the beautiful city which is pictured by Mr. Jemison's company as certain to be realized before the close of the year.

Not only will Corey be the kind of a town that the highest class and most responsible workingman will be glad to live in, in this way making the city a great advantage to the Wire & Steel Company and other industries located in the immediate vicinity, but it is the confident expectation that people who are employed at other plants of the Tennessee company, at Ensley and elsewhere, will be attracted to Corey by the superior conveniences which will be provided. Ensley has had a remarkably successful history, as here are the great furnaces and rolling mills, etc., of the Tennessee company; however, Ensley has practically reached the limit of development possible to the acreage available in that section for building purposes. It was necessary to go elsewhere for the new plants the Steel Corporation is erecting. Ensley and Corey will be connected by a street-car system, both local and interurban. Corey is to be served with a fast and frequent-scheduled line of street cars between this district and Birmingham, and it also has two fine macadamized roads leading to Birmingham. Unquestionably the future of the place is fixed as a most desirable suburban residence section on account of the conveniences which it will itself possess, and also because of the superior transportation facilities which will make it so easily accessible to and from Birmingham.

Very naturally and quite properly the people of Birmingham are very proud of the fact that the most notable city-building

plan the South has ever known, and one of the most remarkable ever seen in the United States, is being carried out in the Birmingham district.

Everything being done in Birmingham today confirms the belief of its founders, that here is to be one of the great inland cities of the continent. Unquestionably the advent of the United States Steel Corporation in the Birmingham district has crystallized, solidified and made real all the ideas, plans and beliefs in the future of this district. The United States Steel Corporation has already made an investment of something like \$50,000,000 in the district, and in addition to the expenditure of \$7,000,000 made within the last two years in practically rebuilding its iron and steel plants, it is now in process of expending some \$8,000,000 more for the steel and wire plant, the by-product plant, the impounding dam and other improvements.

All these activities bear a close relation to other great developments which have occurred here within the past few years. Without attempting anything like a general review of present conditions in Birmingham, it may be noted that everywhere in the district there is a degree of activity hardly paralleled anywhere in the South. There have been numerous new buildings constructed within the last year, such as the magnificent new home of the Chamber of Commerce and the ideally artistic Empire office building. The magnificent Brown-Marx office building, which has just been added to within the past few months, is also another splendid illustration of the development Birmingham is seeing today. In addition to these structures there is a long list of other expenditures to be made in the immediate future, including million-dollar railroad shops for the Louisville & Nashville Railroad; an expenditure of about \$3,000,000 to bring the Atlantic, Birmingham & Atlanta Railroad into Birmingham and provide terminals therefor; the construction of viaducts by the city, and several stores, business and residence houses, the entire expenditure on improvements under way and contemplated footing up more than \$21,000,000.

The population of Greater Birmingham today is put at 125,000. John W. Gates told me three years ago that Birmingham would have 1,000,000 people in 1925. There are plenty of people—not enthusiastic residents of the city, either—who believe that this is a very conservative prophecy. With the discovery of natural gas in large quantities within easy piping distance of Birmingham a new factor in the possible development of the place has been introduced. Natural gas would make all of Birmingham a most charming place of residence by eliminating the smoke and soot which seem to be inseparable from the industrial operations here. Also, it would likely make possible the upbuilding of diversified industries here in a much shorter time than is probable otherwise.

Where the Empire Building now stands, that lot, with two others, sold in the early eighties for \$600. The Empire Construction Co. paid for the site of the building not very long ago \$160,000. There are probably not numerous examples of similar increases in values, although while advances may not be identical in amount, something of the same sort of marvelous advance in real estate values is typical of the entire real estate movement in Birmingham. And these are facts which confirm Birmingham men in the belief that here is to be seen within the next decade a development with hardly a parallel in America. A degree of development and expansion is predicted for Birmingham during the next 15 years greater than

Pittsburg experienced during her entire history up to 15 years ago, and the ratio of increase of Birmingham is expected to exceed that of Pittsburg, which city is taken as an illustration, from the fact that Birmingham has for some time considered herself the Pittsburg of the South.

ALBERT PHENIS.

NEW ORLEANS AND THE CANAL

A \$10,000,000 Steamship Line Suggested by Captain Porch.

Capt. James W. Porch, one of the active men in all that makes for New Orleans' progress, favors immediate provision for a line of steamships to operate from New Orleans through the Panama Canal. He says:

"In my opinion, we should at once commence a campaign of education with the main object in view of constructing our own ships in American shipyards with our own money, and build such steamers as will, in every particular, be as good as any steamers that ply between Atlantic seaboard points and Europe, as far as passenger and freight accommodations are concerned, and of a speed of not less than 16 knots, so as to be able to comply with any mail-subvention law that may be passed. We should have enough of them to give at least twice-a-month service."

"The entire Mississippi Valley and the South should be invited to participate in this, and a fund should be raised of not less than \$10,000,000. The home port should be New Orleans, and it should be known and generally understood that the line is being inaugurated as a combined effort of the people of the Mississippi Valley and the South in appreciation of the magnanimous gift of our Government of this great waterway that places us in touch with hundreds of millions of people whom we cannot now reach. We should pre-empt the right to send one of these magnificent steamers of the line as the first merchantman through the canal when it is finished. This would certainly show to the world that we realize the importance of this port, and it would give us the facilities that can be ours in no other manner. If we are in a position by the time the canal is finished to ship our products to the markets in the far East and open up this trade, the possibilities of which are far beyond calculation, we will have properly acquitted ourselves as the custodians of the gateway of the Mississippi Valley."

"It is all well and good to hold an exposition, but this effort to create a line of steamers ready to go to the markets that the canal enables us to serve is a necessary adjunct. We never can build up commerce through the means of an exposition; it requires ships to plow the sea as much as railroads are required to connect up cities and localities. After the exposition is over the canal will be no nearer to us then than it is now. But if by that time we have five or six 20,000-ton steamers ready to put into the trade, we will be in a position to defy competition from whatever source it may come."

"If the canal means anything, there is greater percentage of the benefits coming to us than to any other section of our country. My idea has always been that we can only expect to build up this seaport by importing as well as exporting, or, in other words, do a reciprocal business, which, after all, is the true and only definition to commerce in its broad sense. We should have large trading companies and extensive forwarding warehouses right here, and through this means take care of the interests of the small shipper and of those who are anxious to reach out for new trade. The theater of action is going to be in these Eastern countries. We are

the only port in the Gulf that can be the pioneer in putting on a fast, efficient freight and passenger service, and this is the only way that we can ever expect to divert the trade through the canal to the Gulf. A tramp service or a bulk-cargo service will never do it. It requires a fast, regular and dependable service that will be in a position to accept cargo in small or large quantities from any shippers from any point at the lowest possible living rates."

"To get the full benefits of such a service the less-than-cargo-shippers' interest must be looked after. Bulk-cargo carriers or tramp steamers will never enable us to build up a foreign trade with these countries. If we depended on this sort of service, we would only get it when it suited the shipper's interest, and the steamers that would touch here at one time would be apt to go to some other port the next time, all depending on the conditions covering the cargo that they desired to gather."

"The idea of a mutually owned and operated line of steamers from this port to the far East through the Panama Canal, when finished, was advanced by the New Orleans Board of Trade, Ltd., by the adoption of a series of resolutions looking to that end, on the 9th day of December, 1903. These resolutions were afterwards endorsed by the Panama Commercial League in convention at Tampa, Fla., May 5, 1904. When the Merchant Marine Commission of Congress had their hearings on the Southern coast and were gathering data with reference to the uses that the canal would be put to when finished, they visited New Orleans and held their session in the directors' room of the New Orleans Board of Trade on the 14th day of November, 1904. These resolutions were put before them and were incorporated as a part of the proceedings of the meeting. Endorsement was also received of the same resolutions by the National Board of Trade in session at Washington, D. C., January 18, 1905. Later the local committee of 25 having in charge the matter of an exposition to properly celebrate the opening of the canal endorsed these resolutions, after which a charter was drafted by Edgar H. Farrar at the request of a committee appointed from the committee of 25. This charter was introduced in the last Legislature and exemption from taxation was asked for for a period of 10 years. Since this required a constitutional amendment, and the bill was not introduced until late in the session, it was withdrawn without action."

"It would seem to me to be the fitting thing for the World's Panama Exposition Co. to assist in putting this project on its feet as a suitable adjunct to their effort, and as the only practical thing to do in the way of making use of the canal and extending the importance of this port so as to reach all of the great ports of the far East and those of the countries south of us."

West Virginia Fruit.

Mr. N. T. Frame of Martinsburg, chairman of the committee on markets and transportation of the West Virginia Horticultural Society, estimates that the peach production this year in the eastern Panhandle of the State will aggregate 500,000 baskets, and that the apple crop will include 100,000 barrels in Berkeley county, 30,000 barrels in Jefferson, 5000 barrels in Hampshire, 3600 barrels in Mineral, 2500 barrels in Hardy and 1000 barrels in Mingo county.

Four hundred acres of land a short distance west of San Antonio, Tex., are to be set out this fall in 90,000 fig trees.

June 2, 1910.]

MANUFACTURERS' RECORD.

65

AN EXAMPLE OF IRRIGATION IN TEXAS.

[Special Correspondence Manufacturers' Record.]

Business Men's Club,
San Benito, Tex., May 21.

The growth of San Benito and the surrounding country tributary to the San Benito irrigation canal during the past two years is the marvel of the lower Rio Grande Valley and Southwest Texas. It is a striking example of the effect of efficient irrigation upon the fertile soil of the delta of the Rio Grande.

Endowed by nature with a fine climate and with a rich alluvial soil, the San Benito country needed but the magic touch of irrigation water to bring under cultivation one of the richest agricultural regions in the world. Now, after the San Benito canal has watered the lands tributary to its course for two years, the promises of the soil and climate to produce abundantly are being realized.

Thousands of acres of semi-tropical jungle have given way to the brush fires of progress. Today, where two years ago only cactus, mesquite and chapparal brush stood, are prosperous, well-kept farms, large and small, producing a large variety of crops.

The irrigation system at San Benito is unique. It is a gravity system, drawing its water supply from the Rio Grande by gravity flow. It is unique in that an old deserted river bed of the Rio Grande, leveed on each side from two to four feet, is used as the channel of the main canal.

The possibility of using this old dry deserted river bed as the channel of an irrigation canal was discovered by Mr. Sam Robertson while he was engineer in charge of the building of the St. Louis, Brownsville & Mexico Railroad several years ago. He found that the old river bed, or resaca, traversed a considerable territory, and that it was clear up to within about a mile and a half of the present channel of the Rio Grande. He also found that the banks of this old resaca, like the banks of the Rio Grande, were higher than the surrounding country, and that all that was necessary to utilize the old resaca in building a gravity system was to cut an artificial channel through the present bank of the river a distance of a mile and a half, levee the old channel, insert dams at different intervals to let the water down by degrees from the river and to run laterals or branch canals out from the main canal, according to the natural slope of the surrounding country.

The San Benito Land & Water Co. set about this work three years ago this month. After constructing an enormous concrete headgate at a convenient point on the company's property on the Rio Grande, they connected the old dry deserted river bed with the river through an artificial channel a mile and a half long. The headgate is a concrete wall 300 feet long, 22 feet high, 4 feet thick at the bottom and 2 feet thick at the top, with a foundation 17 feet wide, all resting on piling driven 26 feet below the bottom of the river. The water enters the canal through eight openings or portals at the bottom of the wall, each 4x6 feet. These portals are opened and closed by steel gates, operated by power screws from the top of the wall. The eight gates have an intake capacity of about 1,000,000 gallons of water a minute, with the river at mean stage. The headgate alone has cost the San Benito Land & Water Co. in the neighborhood of \$100,000. The Rio Grande, being an international boundary stream, the work of building this headgate was done under the supervision of the United States and Mexican governments.

The river banks being higher than the surrounding country, and higher, of course, than the level of water in the Rio Grande,

there is an area of about 5000 acres bordering the river front on which it is possible to put water only by pumps. For this area the company has provided an efficient pumping plant.

The old dry deserted resaca, now utilized as a main canal, traverses the 40,000-acre tract of the company for a distance of 37 miles. Of this 37 miles, the company has leveed and completed all but about two miles, and now has a number of grading outfits in this two-mile gap. Farms along the few miles of uncompleted main canal are being watered by temporary gasoline pumping plants, which will be withdrawn as soon as the levees on this stretch are completed. The canal averages 250 feet in width and 20 feet in depth. At regular intervals the company has constructed, at a cost of \$40,000, five massive dams and ship locks. These locks are large enough to pass tugs and barges 20x60 feet. The dams are converted into highways, and each lock is crossed by a drawbridge. It is the purpose of the company to utilize the canal as a means of transportation. It will take care of an enormous tonnage of sugar-cane, and other heavy shipments.

Over 75 miles of laterals or branch canals have been constructed to conduct the water from the main canals to the various farms. From these laterals smaller ditches, called lead ditches or farmers' field ditches, distribute water to all parts of the various farms. From these laterals smaller ditches, called lead ditches or farmers' field ditches, distribute water to all parts of the various farms. Three hundred flumes and water gates connect farmers' ditches with company laterals. This large number of water connections is a splendid index to the magnitude of the cultivated acreage at present. Thousands of acres more are in process of preparation for crops, and ditch riders are constantly at work connecting new farms with the company's laterals.

A splendid system of drainage is being rapidly perfected. Two and a half miles of drainage ditch have been constructed for each mile of canal and lateral. These are being connected as needed and turned into the Arroyo Colorado, an arm of the sea, and into the old dry deserted river bed below the company's property. Drainage and irrigation go hand in hand.

The channel of the main canal affords a storage for 31,000 acre feet of water. When filled this channel stores enough water to irrigate the San Benito tract for a considerable period without drawing from the river. This is another unique feature of the San Benito canal.

Water was first turned into the canal from the river in January, 1908, and practically all of the development in a farming way on the San Benito tract has been done since then.

At present there are approximately 10,000 acres of land in crops, divided as follows: Sugar-cane, 2200; cotton, 4800; broom corn, 1000; truck of all kinds, 1037.52; corn, alfalfa, millet and various other forage crops, citrus fruits, grapes, berries, etc., 800 to 1000. The truck acreage is divided as follows: 250 acres in onions, 525 acres in cabbage, the balance in potatoes, beets, beans, cantaloupes, watermelons, eggplant, cauliflower, radishes, peas, carrots, asparagus, celery, pepper, turnips, lettuce, cucumbers, okra, tomatoes, squash, spinach and other garden truck.

Winter truck has been shipped north from this point by freight and express in a steady stream since December 1. Yields have been splendid, and with few exceptions prices have been good. Truck farmers have made from \$300 to \$600 per acre. Of the past winter's truck crops over 300 carloads of cabbage and onions

alone have gone to Northern markets from this point.

Sugar-cane was in splendid demand here this year, and all that was raised in 1909 found ready market at San Benito at an average of \$5 per ton. The yields were good, and planters who had sugar-cane planted last year made from \$75 to \$150 per acre net profit. In addition to the crop raised at San Benito, more than 200 carloads of sugar-cane was shipped into this place, all of which was used as seed in planting the 2200 acres put in this year.

A very large acreage has been planted to cotton this year, and the outlook for a bumper crop is splendid. The San Benito gin, one of the three finest in the State of Texas, is now being enlarged to accommodate the increased acreage.

Alfalfa yielded abundantly during the year, and a considerable increase in acreage is shown. The price remained steady throughout the year, ranging from \$18.50 to \$25 per ton. The alfalfa grown here has been of excellent quality.

The high price paid for broom corn this year has stimulated interest in that crop here, and about 1000 acres of dwarf and standard broom corn is now well advanced. The crop is a proven success in this region, yielding about three-quarters of a ton to the acre. It may be cut twice from the same planting. The San Benito crop will appear on the market about July 1.

Col. W. O. Coleman planted a 30-acre orange grove one year ago. His trees were three-year-old on four-year-old roots. He planted the Florida varieties, and now has a few small oranges on nearly every tree. Colonel Coleman will add to his acreage next year. Other orange groves are doing splendidly. Considerable acreage is planted to grapes. Quite an acreage is planted to bananas, English walnuts, dates and pecans, and they are reported to be doing nicely.

A great many men of large means have invested heavily here and are developing big farms. Col. Alba Heywood, president of the San Benito Land & Water Co., has purchased of the company 2500 acres, most of which he now has in cultivation in sugar-cane, cotton, truck, alfalfa and other crops. James L. Landrum has purchased 2000 acres, 1000 of which is now planted to cotton and about 100 to various crops. The San Benito Sugar Co. has purchased 2000 acres, 200 of which it planted to sugar-cane this year. It will plant the entire acreage to cane during the winter of 1910-11. H. O. Barger & Sons have 1750 acres, 1100 of which is planted to sugar-cane, cotton, alfalfa, truck and forage. Mr. S. C. Cowgill has 1050 acres, 650 of which is planted to sugar-cane, cotton truck and forage. H. O. Evenson and associates have 1000 acres, 500 of which is planted to sugar-cane, cotton, broom corn, truck and forage. The Cascabel Plantation Co. has 500 acres, 100 of which is planted to sugar-cane and cotton. All of these planters are getting their entire acreage in condition to plant as soon as possible. Land is being cleared and put in condition for crops at the average rate of 400 to 500 acres a month. In addition to the planters named, the entire tract is dotted here and there with innumerable farms ranging from 5 to 500 acres.

Many improvements are now being made on the tract, as well as in the town of San Benito. The principal work in this line is the construction of an interurban railroad, covering the entire tract, work on which is going forward with all possible rapidity. About 10 miles of grade have been made, ties have been distributed along the right of way, steel and rolling stock shipped and levels established for the entire road. The new road, the first of its kind in Southwest Texas, is being built by Mr. Sam Robertson. When completed it

will leave no farm more than a mile and a half from transportation either by water or rail. It will be equipped with gasoline motor passenger and express cars, and will handle carload shipments by standard steam locomotives and freight cars. Every farmer will be given the privilege of constructing a switch into his own property at his own expense, thereby enabling him to load his products in his field and bill direct to the Northern market or sugar mill, as the case may be. The new road will interchange express, freight and mail with the St. Louis, Brownsville & Mexico Railroad. It is expected to be ready to handle the cane crop of 1910.

The San Benito telephone system has been extended over the tract, and farmers are calling for telephone connections faster than the telephone crew can take care of the work. The San Benito telephone exchange now has more than 100 connections, and a larger switchboard has been ordered.

An automobile road has been cut through from San Benito to Point Isabel, giving San Benito direct connection with that seaside resort.

The town of San Benito has kept pace with the development of the surrounding country. Two years ago it had a population of about 200; today it has between 2000 and 2500, and is recognized as the largest town in the lower Rio Grande Valley except Brownsville. It has gone forward to meet the demands of a rapidly developed, prosperous agricultural community.

About \$150,000 is being expended in the town of San Benito in building this year. The San Benito Land & Water Co. has just completed a brick and stucco office building at a cost of \$20,000; the contract has been let for a \$25,000 electric light and town water system to supersede the present water system and the gasoline street lights now in use; plans are now being prepared for a \$25,000 brick school building, upon which work will be started shortly; two \$10,000 brick business blocks are now in course of construction, and several expensive residences, ranging from \$3000 to \$6000 each, besides a large number of less expensive though permanent and artistic residences of the bungalow type. San Benito has cement sidewalks in a large part of the older section of town, and walks are now being laid in the second and third addition to the townsite. The city and surrounding country has been settled by progressive and intellectual people, and they are constantly working for the upbuilding of this region. Two churches have been erected, and two more congregations have contracted for buildings. A Business Men's Club and a number of social clubs have been organized.

The San Benito canal, running through the center of the San Benito tract and the town, offers splendid fishing, duck shooting and boating. A number of speedy motor boats now ply its waters, and boating clubs are becoming popular. The Arroyo Colorado, an arm of the sea, bordering the San Benito tract for 12 miles, is a fisherman's paradise. Its waters teem with sea fish. It connects direct with the Gulf through Laguna Madre Bay and Brazos de Santiago Pass, and motor boating trips on this body of water are growing popular. William Jennings Bryan and brother, Mr. Chas. W. Bryan, have purchased an 80-acre farm with a frontage on this arroyo. It is their ultimate intention to put up a winter bungalow on the high arroyo banks and spend a time each year hunting and fishing in this region. The auto road from San Benito to Point Isabel is increasing the popularity of this place among winter visitors because of the ease with which the splendid bathing beaches at that point may be reached.

H. V. WATTS, Secretary.

COTTONSEED MILL MEN.**Features of Their Interstate Association Convention.**

[Special Cor. Manufacturers' Record.]
Little Rock, Ark., May 27.

Much enthusiasm was aroused in the fourteenth annual convention here this week of the Interstate Cottonseed Crushers' Association as a consequence of the letter from Dr. T. S. Hart of New York as to the qualities of bread made from cottonseed flour. He was to read a paper, but was compelled to be absent, and sent a letter in which he stated that such bread possibly possessed curative properties in some cases of disease, notably diabetes. He wrote that he was experimenting with bread-making of the kind and had begun to feel encouraged. Jo. W. Allison of Ennis, Tex., backed up this letter by telling of a case that had come under his own observation. A Catholic priest in Texas, known to Allison, was taken with Bright's disease, relinquished his pastorate and went to a hospital. He craved bread, which his physicians refused. Hearing of it, Allison persuaded them to try cottonseed bread. After a while it was done, and a marked relief came to the sick man. Further experiments were made by suspending the use of medicines for a day and treating the patient wholly with this bread, and then reversing the operation the succeeding day, and so alternating. It was found that on the days when the bread alone was used an improvement was noticeable. Eventually the cottonseed bread was used entirely, and after nine weeks the priest went back to his pastorate.

This was the climax of Wednesday morning's session. The heartiest applause followed the simple statement of Mr. Allison, who was immediately surrounded by enthusiastic delegates extending congratulations.

There was quite a discussion over the proposition for the establishment of a press-cloth factory under the auspices of the association. Mr. Allison, the chairman of the committee appointed at the last meeting to formulate a report on the advisability of the undertaking, said that though the committee had had no meeting during the year, the matter had been discussed by letter, which the committee had adopted as a report after the members had reached Little Rock. The report, which was adopted after some discussion, suggested that the cottonseed-oil mills could establish a factory with a capital of \$100,000 or \$150,000 which could produce a million pounds of press cloth. Mr. Allison said that all the money required could be raised at once, but he felt that the cottonseed men should have a chance to take stock in the undertaking, which is so vital a part of their business. If the cottonseed mill men do not furnish sufficient capital, the money will be obtained elsewhere.

In the paper written by Julien L. Brode, read yesterday, he said: "Paul Mink, Bremen, Germany, has made a machine for completely separating the lint from the cottonseed hull and making from this lint an excellent paper material from which can be made a very fine writing paper as well as printing paper. Mr. Martin, Bitterfeld, Germany, has invented several machines; one removes completely every vestige of lint from the American woolly cottonseed. Another separates the shell from the meat kernel, leaving the matter nearly whole."

Officers were elected as follows: B. F. Taylor, Columbia, S. C., president; R. L. Heflin, Sherman, Tex., vice-president, and Robert Gibson, Dallas, Tex., secretary-treasurer. All elections were by acclamation. The governing committee is as follows:

Alabama—Ernest Lamar, Selma; J. M. Kyser, Albertville.



WILLIAMSON COUNTY COURTHOUSE, GEORGETOWN, TEXAS.

Construction begun; steel, brick and concrete; cost, \$107,550; architects, C. H. Page & Bro., Austin, Tex.; contractor, W. G. Whitney, Beaumont, Tex.

Arkansas—J. B. Hildebrand, Little Rock; R. H. Winfield, Augusta.

Florida—C. Jones, Pensacola; T. D. Sloan, Madison.

Georgia—Fielding Wallace, Augusta; R. G. Riley, Albany; W. H. McKenzie, Montezuma; M. S. Harper, Americus.

Illinois—E. E. Chandler, Chicago; W. D. Napheys, Chicago.

Kentucky—J. J. Caffrey, Louisville; Chas. Schimpeler, Louisville.

Louisiana—J. C. Hamilton, Baton Rouge; W. E. Jersey, New Orleans.

Mississippi—L. Foot, Canton; J. E. Talbert, Minter City.

Missouri—M. E. Singleton, St. Louis; C. P. Monahan, Kansas City.

New York—John Aspegren, New York; W. R. Cantrell, New York.

North Carolina—J. T. Davis, Charlotte; Jonathan Havens, Washington.

Ohio—Franklin Ives, Cincinnati; J. M. McDonald, Cincinnati.

Oklahoma—W. E. Hocker, Elk City; R. K. Wooten, Chickasha.

South Carolina—J. T. Stevens, Kershaw; H. L. Todd, Clinton.

Tennessee—Fred B. Jones, Memphis; J. H. DuBose, Memphis.

Texas—C. H. Bencini, Brownwood; J. S. LeClare, Paris; H. E. Rathbone, Victoria; B. B. Rice, Houston.

Virginia—Wm. Butler, Jr., Portsmouth; Geo. W. Hunter, Richmond.

These were unanimously chosen.

Invitations were extended for next year's convention to be held in New York and Charleston, S. C., which were referred to the executive committee under the rules, with a vote of the convention recommending the first-named city.

Announcement was made that the chemists had effected an organization with the title "Cotton Products Analysts," with 16 charter members, to arrange especially for the standardization of analyses and to meet at the same time and place as the Interstate Association. Felix P. Paquin is the first president. Resolutions of commendation were adopted.

More than 600 delegates attended the convention. Everywhere was shown the intense interest on their part in the papers, discussions and resolutions presented. The occasion brought together a group of alert men, vigorously and intelligently alive to all measures that would aid their business and strengthen their association.

It would be difficult, if not impossible, to overpraise the work of the arrangements committee, of which Col. H. F. H. Eberts was chairman, and of the sub-

sidiary committees under his direction. Entertainment was provided in great measure. The smoker Wednesday night should be especially mentioned, which was characterized by old convention attendants as being the cleverest and most enjoyable ever participated in. The ladies occupied the gallery after their own entertainment had closed. Another notable effort was the trip made Friday to Hot Springs and return, the committee having provided a special train for the guests of the Arkansas Association.

An interesting feature of the convention consisted of exhibits of machinery and appliances used in the cottonseed-oil industry.

The Foos Manufacturing Co., Springfield, O., was represented by C. L. Bauer, president; W. E. Copenhagen, secretary; W. A. Bauer, treasurer; C. M. Hollenbeck, sales manager; D. L. Adelsperger, chief of experimental department, all of Springfield, and S. R. Jacobs, Atlanta, Ga., Southern representative. It exhibited a line of their "scientific" machinery, including hulling and separating machinery, pneumatic seed cleaner, cake breaker, and attrition mill and models of improved parts. They were making Allison cottonseed flour to demonstrate the practicability, this being the first equipment of the kind ever shown. The exhibit was operated by direct motor drive.

F. A. Blain, Fort Worth, Tex., showed the Beaver automatic filing machine for gin saws in operation.

E. D. Carter, Houston, Tex., showed his automatic weighing scale for cottonseed, meal and grain.

The French Oil Mill Machinery Co., Piqua, O., exhibited an accumulator, power pump, hydraulic cake former, press box, Faherty cylinder knives, automatic change valves, and a four-high, 85-inch continuous automatic cooker.

The Modern Gin & Compress Co., Little Rock, Ark., displayed its line.

The W. P. Callahan Company, Dayton, O., manufacturing oil-mill machinery, was represented by D. R. Pickering, Dayton, secretary of the company, and R. R. Nolen, Dallas, Tex., Southern agent. They distributed souvenir key rings of a novel design, embodying the illustration and shape of an oil-mill press.

The Atlanta Utility Works, Atlanta, Ga., were represented by Walter D. Nash, president, and J. Wayne Moore. They exhibited a double huller shaker universal separating machine, linter and huller magnets and the Harwood time recorder.

The Modern Gin & Compress Co., Little Rock, Ark., exhibited its gins.

French Oil Mill Machinery Co., Piqua, O., was represented by A. W. French, Piqua, president; E. W. Taylor, Piqua; M. W. Faherty, Memphis, Tenn., and John Williams Taylor, Dallas, Tex.

Van Winkle Gin & Machine Co., Atlanta, Ga., was represented by E. P. McBurney, vice-president and general manager. Other representatives present were:

The Buckeye Iron and Brass Works, Dayton, O., Chas. E. Peas, Dayton.

The Carver Cotton Gin Co., East Bridgewater, Mass., W. G. Kay of that city and A. A. Vardell, Dallas.

The Burruss Engineering Co., Atlanta, Ga., J. C. Burruss.

Continental Gin Co., A. L. Smith, Birmingham, Ala.; T. R. Collett, Dallas, Tex.; H. W. Brooks, Memphis, Tenn., G. B. Henry, Memphis, Tenn.; J. W. Sykes, Memphis, Tenn.

Dodge Manufacturing Co., Mishawaka, Ind., S. L. Dickey.

Platt Iron Works, Dayton O., E. R. Trace, Dayton, and E. L. Butler, Atlanta.

Dixie Electro-Magnet Co., Memphis, Tenn., Walter Goodman.

American Cotton Oil Co., New York, J. G. Gash and W. D. Burdette, New York.

A. C. BOUGHTON.

The Birmingham Iron Market.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., May 30.

On the whole, market conditions continue on the upgrade. There has been no advance in price, however, but a firmer tendency toward \$12 per ton base. It is generally conceded by both buyer and seller now that these figures correctly represent the Birmingham pig-iron market; \$11.50 iron is only spoken of as having been refused offers. Production, in the way of merchant iron, has been brought down considerably, and the percentage of foundry grades produced for the market during May will show a tonnage considerably under that of April. Sales during the past week were light compared with the week previous, and consisted largely of small lots, ranging from a carload to 75 to 100 tons. The aggregate was probably 5000 tons. Inquiries were mostly from small buyers. Southern charcoal iron is quoted at \$22 to \$22.50 per ton at the furnace.

The business transacted in the water-pipe market was fairly satisfactory, and prices are substantially as follows per net ton f. o. b. cars here: Four-inch, \$23; 6, 8 and 10-inch, \$21; 12-inch and over, average of \$20, with \$1 a ton extra for gas pipe.

There has been no improvement in the scrap market over the week previous, and for the past several weeks. It is a buyer's market, and what he says as to price practically secures the business. As the demand here for scrap is very much limited, local dealers are forced to ship it to Eastern and Western points to the best advantage. Following are prices per gross ton f. o. b. cars here:

Old iron axles, \$17.50 to \$18.

Old iron rails, \$13.50 to \$14.

Old steel axles, \$15.50 to \$16.

No. 1 railroad wrought, \$10.50 to \$11.

No. 2 railroad wrought, \$9.50 to \$10.

Dealers' wrought, \$9 to \$9.50.

Old steel rails, \$10 to \$10.50.

No. 1 machinery, \$9.50 to \$10.

No. 1 steel, \$10.50 to \$11.

Old standard car wheels, \$11.50 to \$12.

Light castings, stove plate, \$8 to \$8.50.

Orders for Steel Rails.

[Special Dispatch to Manufacturers' Record.]
New York, June 1.

Rail orders reported this week include 12,600 tons from the Tennessee Coal & Iron Co. for the Seaboard Air Line. The

Carnegie Steel Co. has orders for 1800 tons. There is also an order for 4500 tons from the Isthmian Canal Commission that will be handled by the Steel Products Export Co., and which, it is understood, will be rolled at Birmingham.

FOREIGN COTTON SHIPMENTS.

Banking Interests and the Question of Protection of Purchasers.

The recent troubles in the handling of cotton drafts are liable, in the judgment of well-informed bankers, to cause serious trouble in the marketing of cotton this year, unless some system be quickly devised to protect banks in cashing drafts with bills of lading attached. A representative of large banking interests of Havre, France, and other large European cities is now traveling in the South studying this question. At the request of a representative of European banking interests, Mr. William Ingle, vice-president and cashier of the Merchants' National Bank of Baltimore, who has given much study to the subject and who is a member of the bills of lading committee of the American Bankers' Association, has written a letter, in which he says:

"The foreign buyer of our staples makes his purchases through his own agents in New York, Chicago, New Orleans and other distributing centers, and these agents have at their command every facility to enable them to learn of the financial and moral responsibility of the interior merchant who is to furnish and ship the merchandise. In this connection it might be well to bear in mind that in almost every case where loss has resulted from fraud those responsible had theretofore enjoyed the highest reputation for honesty in their community and trade. It means no reflection upon the integrity of anyone when it is suggested that temptation to commit wrong is lessened and the possibility of loss in trade greatly diminished when any third agency can intervene between a buyer and seller. Such a third and assumedly disinterested party should be found in the public warehousemen or common carrier. The differences, however, between the two agencies in this country are quite marked. The warehouse laws in most of the States are good, and their receipts are as fully negotiable as are promissory notes. When legally signed on behalf of an issuing corporation such company to the extent of its capital is responsible for the worth of goods named in them to any bona fide holder for value. A like situation does not obtain with respect to bills of lading. While a law in a few of the States undertakes to make such instruments fully negotiable in most jurisdictions, including the United States courts, this is not the case, but they are held to be of mixed character, their holder being subject to local interpretation of their varying conditions, with an interest assignable to the extent of its actual value at the moment of its issuance or subsequent transfer from hand to hand. If in the absence of goods there should be issued a bill of lading, its assignment by indorsement would carry with it only actual value at the moment of such issuance, and this value would, of course, be nil, nor would the issuing carrier be responsible for the act of its agents in so issuing a bill."

"It has been suggested that the bank originally negotiating a draft to which should be attached an order bill should guarantee its genuineness and sufficiency to subsequent holders. Upon what equitable ground such guaranty should be asked is not apparent, and surely no bank at all alive to its interest or responsibility would furnish it. A bank handling such drafts

charges only the current rate of discount on their amount for the time required in their collection. For such rate they could not become insurers of a contract between the two principals, and an insurance fee would be intolerable to honest shippers. It is true that upon the dishonor of any draft an initial bank would meet loss if unable to effect its redemption by its maker, but this would be a proper risk to undertake and like in kind to that assumed in the receipt of a check which eventually should not be paid. A bank never willingly undertakes other risks, and when the Supreme Courts in several Southern States a few years ago so interpreted the common law as to hold the negotiator of a draft responsible for the sufficiency of its attached bill of lading a definite waiver of such responsibility was thereafter and is now impressed upon such bill by the bank.

"As a practical matter it is difficult to understand how it would be possible for an initial bank, excepting only those at very small stations, to obtain such assurance of the actual shipment of goods named in a particular bill of lading to warrant it in becoming its guarantor. It would be especially difficult at the seaboard and its connection with shipments of grain in bulk. A railroad agent, who at the same time should be a cotton merchant, if intent upon fraud could easily issue two or three sets of identical bills and in regular form and against a single shipment of say cotton, and it would be an exceedingly difficult matter for any third party, presumably some bank at a town at which any quantity of cotton was shipped, to learn from independent investigation whether one or all such bills had been issued against actual merchandise."

Mr. Ingle closes his letter by advising the enactment of a law by Congress as shall properly hold a carrier responsible for the acts of its agent in issuing order bills. "With such a law in force," says Mr. Ingle, "the carrier would be less prone than at present to name as its agent a valuable shipper at a given point or to permit the issuance in its name of order bills of lading signed by other than the hand of its independent agent. The lessons recently furnished by the cotton failure in Alabama and Mississippi and the like trouble with grain bills at Albany, while costly to those immediately concerned, will not be unmixed evil if resulting from them such pressure could be brought to bear upon Congress as shall impress upon it the importance to the commerce of the country of the passage of an act now before that body, which being in effect will furnish every protection desired and at the same time impose no hardship upon any common carrier."

The Texas Company.

The Texas Company of Houston has voted an increase of capital stock from \$18,000,000 to \$36,000,000. This stock will be issued from time to time as needed, and R. E. Brooks, the company's treasurer, is quoted as saying:

"Outside of the establishment of new stations nothing special is contemplated. We now have refineries at Port Arthur, West Dallas and Port Neches, and are planning to build another at Tulsa, Okla. This will be a heavy expense, but will greatly increase our capacity and facilities.

"Our business is growing rapidly, and with the authorization of \$18,000,000 more capital stock we will be practically the biggest competitor of the Standard Oil Co., with the possible exception of the Pure Oil Co.

"We are finding an excellent market for our products abroad, and have a growing trade in France, Germany and Belgium."

WATER POWER OF THE SOUTH--II.

By H. A. VON SCHON, Civil and Consulting Engineer.

[Written for the Manufacturers' Record.]

The water-powers which had been developed in the Southern States, including the year 1905 aggregated 150,000 mechanical horse-power (Bulletin 88, United States Census Bureau), to which approximately 50,000 horse-power had been added during the last four years, while developments are now in progress which, when completed, will realize about 100,000 horse-power more, making a grand total of 300,000 horse-power. This represents less than 8 per cent. of the available minimum water-power of the South, less than 5 per cent. of the available maximum, and less than 1 1/4 per cent. of the water-power in the South which can be developed with practicable river flow regulation.*

Almost all recent efforts at water-power development in the South have been energized by Eastern capital and have been confined to opportunities which are capable of large power yields, projects which could be framed into propositions involving millions and thus offer the opportunities for the high finance practice of the last decade. Seven of these modern Southern water-power developments represent two-thirds of the now developed 300,000 horse-power, and utilize four rivers. But little progress has been made in the development of the thousands of smaller water-powers, which would yield from 2000 to 5000 horse-power and supply a ready market. In fact, present methods render the development of a water-power requiring less than \$500,000 exceedingly difficult, because it is too small a proposition to attract Eastern financiers, and the number of water-powers which have been capitalized at home or at the logical money center of the State may be counted on the fingers of one hand. It is not so with other industrial undertakings in the South; the wonderful development of its manufacturing interests has not been thus retarded.

However, this water-power condition is not peculiar to the South; it applies to the country at large, and there is a sufficient reason for it. Concisely stated, it is the want of confidence of the general investing public in water-power securities, and it is the need of knowledge on the part of those who should and would champion such developments of the facts concerning the character, defects and merits of water-power as a commercial enterprise which forms an absolutely essential equipment to create such confidence. I take it that if a water-power project were presented to the understanding of any interested group of Southern people by men who have their confidence, as plainly as that for a cotton mill, it would be financed as readily, and I am prepared to demonstrate that this can be done; that, in fact, the uncertainties surrounding a cotton-mill project are much more formidable and objectionable than those of a hydro-electric enterprise, and that of these two, the initial and future value of the latter can be presented with greater certainty than of the former.

The essential facts concerning a water-power project are chiefly of legal and engineering character, and their clear determination present no greater difficulties than those concerning other commercial enterprises of similar importance and scope.

The legal facts have to do with ownership of lands, control of water and rights to change the natural river flow conditions. The lands may be owned by the

Federal Government, such as public lands, forest reserves and navigation works, and may be purchased or leased for water-power purposes in accordance with the provisions of the United States statutes.

An act of February 15, 1901, provides for the granting of a revocable right to pass through public lands with a canal, ditch, flume, pipe and transmission lines and to occupy such lands in a similar manner with water plants, dams and reservoirs.

The United States Department of Agriculture issues permits for the development of water-power, construction and maintenance of storage reservoirs and right of way for transmission lines in and through a Government forest reserve, with a graduated charge for such privileges.

The United States Government maintains many dams on Southern rivers in connection with navigation works, and asserts ownership of the water-power created by such dams. The War Department will lease the necessary lands required to develop the power represented by the water flowing over a Government dam, making a charge for the occupancy of such land and the use of the water. This, as will appear later, is a very important source of Southern water-powers which may be developed to the great advantage of the United States Government, navigation and the industrial interests of the South.

This completes the legal phases of ownership of lands as influenced by Government holdings. Whether any of the States in the South own water-power lands to which the fee cannot be acquired in the regular channel is not known to the writer.

Where lands are owned by private individuals the customary procedures of abstract examination and purchase must be followed. In some of the Southern States recent enactments extend to a water-power development whose product is to serve public utilities the right of "eminent domain" for flowage, storage, canal and transmission line right of ways.

This probably covers the proprietary status of lands, but the use and control of the water and the changing of the natural flow conditions may be limited or subject to laws and regulations.

Many of the Southern rivers are navigable, and over these the United States Government exercises regulation for the purpose of preserving and facilitating navigation. That is, the Government does not exercise sovereign control over such rivers, as the shore lands may be owned and occupied by anyone and the bed is claimed by the respective Commonwealths, and the water may be used by the riparian owner, excepting that if he changes the natural flow conditions, such changes may affect navigation injuriously in one way or another, and as to this the Government claims and asserts regulating authority. As this phase of Government control on navigable rivers is of exceedingly great importance in considering the water-powers of the South, it deserves detail treatment.

This control of all rivers with navigation improvements is delegated to the Secretary of War. A river passes under his regulation when an appropriation is made by Congress authorizing and providing for its examination, or of any special reach of it, in order to determine the feasibility and advisability to make it navigable. Though not navigable in fact, it then becomes a navigable river in law as far as the rules and regulations regarding the changing of any of its natural conditions or its bridging are concerned, and it remains so until

*NOTE.—Figures of the National Conservation Commission indicated nearly 1,000,000 horse-power developed in 1908 in the fourteen Southern States.—MANUFACTURERS' RECORD.

the War Department has advised Congress that it does not recommend any navigation improvements, when the river ceases to be so regulated.

The present act is that approved June 21, 1906, and is here quoted:

An act to regulate the construction of dams across navigable waters.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when, hereafter, authority is granted by Congress to any persons to construct and maintain a dam for water-power or other purposes across any of the navigable waters of the United States, such dams (*sic*) shall not be built or commenced until the plans and specifications for its construction, together with such drawings of the proposed construction and such map of the proposed location as may be required for a full understanding of the subject, have been submitted to the Secretary of War and Chief of Engineers for their approval, or until they shall have approved such plans and specifications and the location of such dam and accessory works; and when the plans for any dam to be constructed under the provisions of this act have been approved by the Chief of Engineers and by the Secretary of War it shall not be lawful to deviate from such plans either before or after completion of the structure unless the modification of such plans has previously been submitted to and received the approval of the Chief of Engineers and of the Secretary of War; provided, that in approving said plans and location such conditions and stipulations may be imposed as the Chief of Engineers and the Secretary of War may deem necessary to protect the present and future interests of the United States, which may include the condition that such persons shall construct, maintain and operate, without expense to the United States, in connection with said dam and appurtenant works, a lock or locks, booms, sluices, or any other structures which the Secretary of War and the Chief of Engineers at any time may deem necessary in the interest of navigation, in accordance with such plans as they may approve, and also that whenever Congress shall authorize the construction of a lock, or other structures for navigation purposes, in connection with such dam, the person owning such dam shall convey to the United States, free of cost, title to such land as may be required for such constructions and approaches, and shall grant to the United States a free use of water-power for building and operating such constructions.

Sec. 2. That the right is hereby reserved to the United States to construct, maintain and operate, in connection with any dam built under the provisions of this act, a suitable lock or locks, or any other structures for navigation purposes, and at all times to control the said dam and the level of the pool caused by such dam to such an extent as may be necessary to provide proper facilities for navigation.

Sec. 3. That the person, company or corporation building, maintaining or operating any dam and appurtenant works, under the provisions of this act, shall be liable for any damage that may be inflicted thereby upon private property, either by overflows or otherwise. The persons owning or operating any such dams shall maintain, at their own expense, such lights and other signals thereon and such fishways as the Secretary of Commerce and Labor shall prescribe.

Sec. 4. That all rights acquired under this act shall cease and be determined if the person, company or corporation acquiring such rights shall, at any time, fail to comply with any of the provisions and requirements of the act, or with any of the stipulations and conditions that may be prescribed as aforesaid by the Chief of Engineers and the Secretary of War.

Sec. 5. That any person who shall fail or refuse to comply with the lawful order of the Secretary of War and the Chief of Engineers, made in accordance with the provisions of this act, shall be deemed guilty of a violation of this act, and any persons who shall be guilty of a violation of this act shall be deemed guilty of misdemeanor, and on conviction thereof shall be punished by a fine not exceeding five thousand dollars, and every month such person shall remain in default shall be deemed a new offense and subject such persons to additional penalties therefor; and in addition to the penalties above described the Secretary of War and the Chief of Engineers may, upon refusal of the persons owning or controlling any such dam and accessory works to comply with any lawful order issued by the Secretary of War or Chief of Engineers in regard thereto, cause the removal of such dam and accessory works as an obstruction to navigation at the

expense of the persons owning or controlling such dam, and suit for such expense may be brought in the name of the United States against such persons, and recovery had for such expense in any court of competent jurisdiction; and the removal of any structures erected or maintained in violation of the provisions of this act or the order or direction of the Secretary of War or Chief of Engineers made in pursuance thereof may be enforced by injunction, mandamus, or other summary process, upon application to the Circuit Court in the district in which such structure may, in whole or part, exist, and proper proceedings to this end may be instituted under the direction of the Attorney-General of the United States at the request of the Chief of Engineers or the Secretary of War; and in case of any litigation arising from any obstruction or alleged obstruction to navigation created by the construction of any dam under this act, the cause or question arising may be tried before the Circuit Court of the United States in any district in which any portion of said obstruction or dam touches.

Sec. 6. That whenever Congress shall hereafter by law authorize the construction of any dam across any of the navigable waters of the United States, and no time for the commencement and completion of such dam is named in said act, the authority granted shall cease and be null and void unless the actual construction of the dam authorized in such act be commenced within one year and completed within three years from the date of the passage of such act.

Sec. 7. That the right to alter, amend or repeal this act is hereby expressly reserved as to any and all dams which may be constructed in accordance with the provisions of this act, and the United States shall incur no liability for the alteration, amendment or repeal thereof to the owner or owners or any other person interested in any dam which shall have been constructed in accordance with its provisions.

Sec. 8. That the word "persons" as used in this act shall be construed to import both the singular and the plural, as the case demands, and shall include corporations, companies and associations.

No statute exists which clothes the Federal Government with any authority to regulate any water-power development in its corporate capacity, the manufacturing or disposal of electric current, or the rates charged for the product; nor does it appear that the Federal Government has authority to exact any tax or toll for the use of the water in a navigable river where it does not own any adjacent shore land.

Federal control on navigable rivers is generally taken to be limited to its navigable portion in fact, but the following quotation from the opinion of the United States Supreme Court (Thomas vs. United States, 192 U. S., 363, Chief Justice Fuller) outlines a safe treatment in such a case:

Nearly all navigable streams in their upper and more remote courses are not, as a matter of fact, navigable, and in such reaches of the river dams can be erected and water-powers created under State authority and State license, and so long as such dams and water-powers do not materially injure or diminish the navigability of the stream in its navigable portions the Federal Government has no ground for interference. It has been customary, however, in many cases to apply to Congress for a Federal license, and the granting of it, while not necessary, serves a twofold purpose: First, that it authorizes the Federal Government, through the War Department, to control and direct the construction of the dam, and second, that it recognizes the fact, which might otherwise require proof, that the dam will not affect the navigability of the stream in its navigable portions.

So much for limitations to water-power developments on navigable rivers. It is not known to the writer that any of the Southern States have yet enacted laws by which water-power developments are regulated excepting as relates to the incorporation of the enterprise and possibly the approval of the proposed dam by a State commission. This latter authority is also reserved to the county commissioners in some States.

The limitations to the use of the water growing out of adverse ownership need not be elaborated upon. A riparian owner has

the use of the flow and fall within his boundaries, and no more; he cannot retard the continuity of the natural flow without taking the right of the lower owner, nor can he raise the natural level above his upstream boundary without trespass.

The engineering facts concerning a water-power project relate to all the physical conditions which influence the development, and none of these need be in the slightest manner uncertain. The source of power are the flow and fall. The flow in the Southern rivers has been the subject of exhaustive investigation by the United States Geological Survey during the last 10 years, and at present it is not difficult to determine this factor. It must be approached by way of precipitation, the dryest year of the last decade being sought, and for this the resulting run-off by days or months. Which volume of the available is to be taken for the development basis is to be decided from the current market requirements and the cost of supplementary power from water or other source. The experienced investigator can deduct with certainty the economical combination of hydro and auxiliary power source which can be relied upon for continuous output.

The fall is the subject of instrumental determination, and the experienced judgment of the engineer decides how much of that existing in a certain reach of the watercourse represents the most resourceful power factor for the recommendable development program. The scope and character of the development is then planned from detail examinations of dam sites, diversion and power station locations; the required structures are designed in detail and their cost determined. In all these operations there need be no doubtful assumptions as to future results when executed by an experienced man, and thus the engineering features of a water-power development may be clearly analyzed and become definitely known.

The water-powers of the South are on navigable rivers, at Government dams and otherwise, and on water-courses not now controlled by the Federal authorities, and their utilization will constitute them public or private plants. At every lock dam some power development is practicable and would prove of great commercial value if the river's flow were regulated to the practicable limit. On many of these rivers the high flow is one hundred times as great as the low; for months at a time no water passes over the dams; in fact, the level falls below the dam crest and the water is of insufficient depth on the lock sills to guarantee the planned navigation. During such periods there is no practicable navigation on these rivers, and the considerable expenditures at which navigation works are created fails to realize the intended purpose.

During high water, or flood periods, the locks are likewise unserviceable and navigation exists only through the hazardous practice of passing over the drowned dams. Water-power development at these sites under these conditions is, of course, non-commercial. But on all of these Southern rivers a considerable portion of the high-flow volume may be stored in large reservoirs to be redistributed during the low-flow periods, and with such a program of "conservation of flood waters" navigation could be made permanent, while a profitable water-power development could be realized at every Government dam.

And the same conditions, growing out of excessive and unregulated flow conditions, prevail on most of the Southern rivers, while a like regulation program will render every available water-power commercially valuable, and it has been pointed out in the former article that the aggregate power from the minimum flow of Southern rivers is about one-sixth of that obtainable with feasible flow regulation.

That flow regulation is an absolute necessity for the future resourceful development of water-powers in the South admits of no argument, and the only question is how it is to be brought about. So far no serious attempts have been made in this direction, and the undoubted explanation is because the carrying out of this, "the true water-power resource conservation program," calls for such extensive and costly investigations that their undertaking is prohibitive when considered as relating to any single water-power development, and could be only entertained in connection with the developments of all the water-power on the respective rivers. Only the broadest co-operation of the Federal and State governments with the interests who would develop and utilize these water-powers can bring about such river flow regulation. Where the Federal Government maintains navigation works it is more vitally interested in flow conservation for navigation's sake than water-power utilization, but the latter would not only reimburse the Government for the cost of the needed reservoir site examinations, but render the now periodical navigation conditions permanent. Something along these lines has been done recently by the United States Engineer Corps; provisions have been made in late river and harbor appropriations by which river explorations and surveys can be extended to the development of available reservoir sites, and if the resulting data are published in the shape of topographical plans these opportunities would become known and probably taken advantage of by the water-power interests.

On navigable rivers the States should collect this information and place it at the disposal of the public. This is also now done in some sections, such as New York and Pennsylvania, and the Southern States should lose no time in initiating similar programs.

And the Southern States should enact statutes framed for the purpose of encouraging the most resourceful development of all water-powers, the greatest practicable conservation of flood water, and to regulate and control the utilization of this natural power source, so that the customers of its product, the public, may be assured full protection in the enjoyment of its benefits.

The States should extend the "eminent domain" right to all bona fide water-power and water-conservation enterprises, because the development of this otherwise wasting natural resource and energy confers a great benefit upon the people of the Commonwealth, not only by the direct useful value of what before was idle, but also in the diminution of the formerly perennial flood damages, soil wastes and water contaminations.

And statutes should be enacted by the Southern States by which the conservation of a certain portion of the flood flow of a river by storage in reservoirs vests in the persons creating such resource conservation the necessary rights by which they may be reimbursed from a reasonable tax laid on all the water-power opportunities which are benefited by such flow regulation. Such legislation has been passed by some of the Northern States recently, notably in Wisconsin.

The development itself of the water-powers must be left to private enterprise, and when the above-outlined suggestions are conditions of fact, when reliable information regarding storage opportunities on the Southern rivers is available to any investigator, when the needed reservoir sites can be acquired by condemnation proceedings, and when the conservers of water, the river-flow regulators can reimburse themselves by the collection of a fee from the water-powers thus benefited, whether they are developed or not, and is thus guaran-

ted a reasonable reward for their enterprise, then river-flow regulation will soon become a real condition and the water-powers will be rapidly developed, because they will then represent absolutely safe enterprises and because they will be better able to meet the conservation charge than if they lie idle.

Water-power securities will then be sought after by the general public with great eagerness, and there is no better investment for the savings of the people of the South than in the development of this vast but now idle wealth.

This question of water-power development is of public concern, in that it relates to one of the natural resources of power on which the people must rely when other sources become scarcer and exhausted, and this question now merits the fullest attention of the public. If the suggestions herein outlined point to a practicable and effective program to bring about the rapid resourceful development of these water-powers, and thus hasten the day when the people may reap the benefit inherent in this now perishing or wasting natural resource, then let the public take knowledge and through the channels of publicity inform their representative legislators that they desire them to put such a program into effect and let the world know what this mighty water-power resource represents and that the way is being prepared to have them developed. Let the commercial bodies of the cities take up this business and get acquainted with it by inviting men who can present the subject to tell them all about it and let them appoint committees to confer with other cities and with representatives in Legislatures and Congress to secure the widest possible co-operation, and let the Southern States have water-power conventions by States and as a group, so that their efforts may be of a somewhat uniform scope, where the question of river surveys and explorations for reservoir locations can be fully canvassed in order to make provisions for such work by the joint action of several States where the river is interstate; and, finally, let uniform laws be drafted and enacted to cover the right of eminent domain for conservation works with provision for reimbursement from fees of benefited water-power opportunities and others covering the necessary regulation of water-powers to guarantee the people who confer these privileges against any abuse of them.

Contracts for Oil Mills.

Announcement is made that the Will Hill Newton Company of Griffin, Ga., has been awarded contract by the Farmers' Cotton Oil Co. of Lagrange, Ga., for the construction of its proposed oil mill at an approximate cost of \$50,000. The Newton company also secured a contract recently for the construction of an oil mill at East Point, Ga., for the Gresham Manufacturing Co. Ernest Culpeper will superintend construction work at Lagrange.

Sugar Refinery for Texas City.

The Texas Sugar Refining Co. has been incorporated with a capital stock of \$1,600,000 for the purpose of building a plant at Texas City. It is understood the plant will cover 12 acres of land and have a daily output of 600 tons of refined sugar. The Eastwick Engineering Co. of New York is the contractor and engineer in charge. The Texas City company is understood to be largely interested in the new enterprise.

It is estimated that Nashville, Tenn., has 600 industrial establishments, employing 18,000 wage-earners and having an annual output of \$30,000,000.

SOUTHERN COMMERCIAL BODIES WANT INDUSTRIES

WHAT IS YOUR TOWN DOING?

The MANUFACTURERS' RECORD will be glad to receive from responsible correspondents in every town in the South brief items of news about business conditions and the opportunities for industrial enterprises. This information is desired for publication without cost of any kind to the sender, and regardless of whether the writer of the letter is a subscriber or not. The MANUFACTURERS' RECORD accepts no paid town write-ups. It seeks information of this kind from commercial and industrial organizations and from municipal authorities in every town and city of the South.

This department is open only to news facts of interest to investors and homeseekers. Communications of 200 or 300 words are likely to be given prompter publicity than more extended ones.

NATURAL GAS THE MAGNET.

Chamber of Commerce,

Pawhuska, Okla., May 23.

Editor Manufacturers' Record:

We are now installing the machinery for a modern brick-making plant of 50,000 daily capacity. The plant will make common building, repressed pavers and pressed-front brick. We expect to be turning out brick by the 15th of June. The plant will cost complete \$40,000. It is a stock company, the majority of which was subscribed here. Mr. O. W. Buck of Kansas is the largest stockholder, and has been elected president and general manager.

In addition to this plant, we are locating Mr. Frank C. Nicholson and associates of Iola, Kans., and Kansas City, who will put in a 100,000 capacity brick plant, together with tile-making machinery. This plant will cost \$100,000, and is modern in every respect. These gentlemen are waiting for the title of the land on which they would locate this plant to be perfected, when they will begin immediate construction. These people have been attracted to our city by our enormous supply of natural gas and its cheapness.

Pawhuska citizens control six sections of proven gas land, on which there are 19 wells already developed. Our wells run from 20,000,000 to 80,000,000 cubic feet each daily capacity. We are furnishing this gas at from one to two cents to manufacturers, owing to the size of plant and the number of men employed.

We are very anxious to secure other factories to use our wonderful supply of natural gas.

J. B. TOLSON,

President.

ALERT AND ACTIVE.

Board of Trade,

Cleburne, Tex., May 27.

Editor Manufacturers' Record:

A special committee from the Board of Trade closed a deal with H. Broklemeyer to move his foundry and machine shops from Temple, Tex., more than doubling the former capacity. Cleburne citizens taking \$21,000 worth of stock, the plant will be capitalized for \$30,000 and work from 40 to 50 men. Another committee from the Board of Trade has completed the raising of \$30,000 worth of stock and closing a contract with Daniel Hewitt to put in six miles and equip a local electric street car line free from debt.

J. T. JOPLIN,

Secretary.

TIFF COUNTY CROPS.

Tifton, Ga., May 19.

Editor Manufacturers' Record:

It has been estimated by good authority, that there has been as much land taken in this year in Tift county as there was in cultivation all told before. Fifteen-cent cotton is getting everyone busy, and this part of the country is very healthful; lands have gone up in price at least double within the last 12 months, and it looks like cheap land in this country will soon be a thing of the past. Lands in cultivation are selling here from \$25 to \$90 per acre.

This is getting to be a big oat-raising country. I can show you large fields of them now that will average 50 bushels per

acre, and they will cut them this and next week and plant the same in cotton and make about one-half bale to the acre. I can show you where this was done in several instances last year in Tift county. Some cut the oats and sow in cowpeas. They make about a ton, and sometimes two tons, per acre, and they get about \$20 per ton for them, so you see taking the oats, at 50 bushels per acre, at 70 cents per bushel, which we get here at harvest, and say one ton of hay, at \$20 per acre, it is very profitable. A farmer can make enough in one year to almost pay for a good farm. This sounds loud, but I will prove it to anyone that you may send to this town.

W. E. FARMER.

GADSDEN NEEDS HOUSES.

Business Men's Club,

Gadsden, Ala., May 25.

Editor Manufacturers' Record:

Gadsden is sorely in need of houses to accommodate the influx of population. The Business Men's Club has been using its best efforts to stimulate our citizens of means to build all the houses possible, and while hundreds and hundreds of buildings have gone up, the cry is for more. The paving on the principal streets is making good progress, and Broad street, the principal business street, as far as the paving is completed presents quite a city appearance. All the resident portion of our city is furnished with nice broad concrete sidewalks, that add much to the beauty and convenience of the houses. No city anywhere can boast of prettier residential property than Gadsden. The progress and development that is going on at Gadsden is wonderful indeed. The huge plant of the Southern Iron & Steel Co. is nearing completion, and operations commenced as fast as completed in the different departments. Gadsden needs another steel plant in order to supply merchant steel and for manufacturing purposes. With a plant here to furnish the steel there can be no better location on earth for a chain factory, plow factory, bridge construction works and for plants of every description to manufacture steel products.

W. R. PHILIPS,

Secretary.

LOCATING INDUSTRIES.

Chamber of Commerce,

Wichita Falls, Tex., May 25.

Editor Manufacturers' Record:

The Chamber of Commerce of Wichita Falls has just closed an agreement with Mr. O. A. Kentner of Sapulpa, Okla., and Dr. J. B. Paul of Oklahoma City, Okla., for the construction of a brick plant having a capacity of 100,000 building brick daily. The capital stock of the company will be \$100,000, and work will begin within the next 90 days, and the plant will be in operation by May 1, 1911.

The Chamber of Commerce has also located during the present month a furniture jobbing and mattress manufacturing plant capitalized at \$40,000. Mr. M. A. Brin and W. A. Frear of this city are promoting this enterprise.

Mr. W. S. Martin is at the head of a company organized here this month with a capital stock of \$50,000 for the estab-

lishment of a wholesale and manufacturing drug house.

Mr. H. A. Emerson of the United States Packing Co. of Chicago closed a contract this week with the Chamber of Commerce for the location of a packing plant, work upon which will begin within 60 days. The plant will cost \$300,000 and will employ over 200 men. It is intended to have it in operation by January 1, 1911.

W. C. BARRICKMAN,
Secretary.

FORT WORTH PROGRESS.

Board of Trade,
Fort Worth, Tex., May 25.

Editor Manufacturers' Record:

The Overland Automobile Co. of Toledo, O., after considering the propositions of several cities, has decided to locate its assembling plant in Fort Worth. This decision was reached only after weeks of careful consideration, during which time a large delegation of public-spirited business men of Fort Worth, headed by President Edgar of the Board of Trade, called on the home factory, setting forth the manifest advantages of Fort Worth in unmistakable terms.

Two new interurban lines have been surveyed and the stock sold. One of these lines, to Cleburne, will connect Fort Worth with one of the most prosperous towns in middle Texas. The road to Mineral Wells is now an assured fact, the stock having been eagerly subscribed to. The Board of Trade is now working on a proposition to secure a road to Trinidad, Tex. This road is now practically an assured fact, and when completed will open up a country practically new.

Several new factory propositions are now in the hands of committees, and everything points to a speedy realization of their hopes in this direction. Factories have contributed largely to Fort Worth's prosperity in the past, but the possibilities are practically unlimited in this field of industry.

A remarkable forward movement in street building is now on in the city. Contracts calling for more than 35 miles of street paving have been let, and at the present rate the amount will approximate 50 miles before the end of the year.

Fort Worth is to have three new hotels in the very near future. The new Delaware when completed will be one of the handsomest and most modern equipped hotels in the State. An important addition is being made to the Terminal Hotel, which is now one of the most comfortable hosteries in Texas. Work has begun on the new August Hotel, adjoining the Majestic Theater. This structure will be of reinforced concrete, five stories and about 200 rooms.

H. E. HERSHEY,
Secretary.

EL PASO'S GROWTH.

Chamber of Commerce,
El Paso, Tex., May 16.

Editor Manufacturers' Record:

The next Federal census of El Paso will show about 40,000, not including settlements just outside of its limits, which will show from 6000 to 8000 people as directly interested in this city as those within its boundaries. This shows an increase in population between 1900 and 1910 from 15,900 to at least 46,000.

Its geographical position is peculiar, in that it commands the control of the western gateway to the State of Texas and the northern and natural entrance to the Republic of Mexico, and has no competition within a radius of 600 miles, therefore it is fast becoming a center of trade and manufacturing.

Within the great trade territory of El Paso there are hundreds of mines—of gold, silver, copper, lead and tin.

The United States Government irrigation project, better known as the Elephant Butte Dam, is about to begin actual construction at a cost of \$8,200,000, which when completed will irrigate 200,000 acres of the richest fruit, vegetable, grain and alfalfa producing lands in the United States.

El Paso bank deposits have grown from \$1,000,000 in 1900 to over \$9,000,000 in 1910, and assessed valuation of property from \$7,000,000 to \$36,000,000. Never in the history of this city has so much building of a substantial nature been in progress at any one time. There are now in course of construction the following buildings:

Anson Mills Building, 12 stories.....	\$300,000
Fewell Building, 10 stories.....	80,000
American National Bank, 7 stories.....	125,000
Baum Building, 7 stories.....	110,000
Toltec Club, 5 stories.....	100,000
Caples Building, 2 stories.....	10,000
Roberts-Banner Building, 4 stories.....	125,000
Eggers Building, 4 stories.....	30,000
Schutz Building, 3 stories.....	35,000
Kraukauer, Zork & Moye Building, 3 stories.....	85,000
Reckhart Building, 2 stories.....	23,900
Horseley Apartments.....	45,000
Young Women's Christian Association.....	22,000
Morehouse Building.....	10,000
Great Texas Realty Co., 3 apartments.....	30,000
Total.....	\$1,130,900

Since January 1, 1910, the following have been completed and occupied:

Caples Building, 5 stories.....	\$110,000
Rio Grande Valley B. & T. Co., 7 stories.....	60,000
Marion Apartments.....	36,000
Carter White, 2 stories.....	15,000
Total.....	\$221,000

We want a modern fireproof hotel, one having not less than 250 rooms, that can accommodate the heavy tourist travel that passes through this city every day. Several propositions are before the Chamber of Commerce at this time, but as yet none have been accepted, for various reasons; however, our people are willing to give every consideration and financial assistance within their power to any business proposition that may be submitted.

We also want cotton mills, rolling mills, harness factories, box and crate factory, cotton underwear factory, glove factory, woolen mills, matting, rope and mattress factory, spring and cot factory and a packing plant.

El Paso is solidly built of brick, and it has 26 miles of paved streets, a modern lighting system, exceptional educational, religious and social institutions.

All we need is more people and more money, and a thorough understanding by homeseekers, farmers and capitalists of the exceptional resources and advantages of this community will reveal to them the great opportunities awaiting development.

C. A. KINNE,
Secretary.

Detailed information about towns seeking manufacturing enterprises and offering specific advantages for development and business opportunities can be found under the head of "Classified Opportunities" on pages 94, 95, 96, and under "Cities, Towns and Railroads Inviting Factories" on pages 148, 149, 150, 151 and 152.

For Mobile.

The Mobile Progressive Association has been organized at Mobile, Ala., for the purpose of encouraging the location of industries in the city and its vicinity and to bring farmers into Mobile county. Its officers are: President J. Howard Wilson of the Mobile Light & Railway Co., president; President E. J. Buck of the City Bank & Trust Co., and President W. T. McGowin of the English Carriage Co., vice-presidents, and President M. J. McDermott of the Bank of Mobile, treasurer. The executive committee includes men

prominent in finance, transportation, real estate, insurance, journalism and mercantile pursuits. A secretary is still to be elected, and the association is looking for a capable man.

A \$250,000 Pipe Line.

The Interstate Gas Co. of Huntington, W. Va., has awarded contract to Booth & Flinn, Ltd., of Pittsburg for the construction of a gaspipe line from Lincoln county to Huntington. It is understood that about \$250,000 will be expended, the line to include 24 miles of 10-inch high-pressure gas mains and accompanying facilities.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

McKinney, Tenn.—City voted issuance of \$18,000 of bonds for street paving, etc.

Stamford, Tex.—City voted issuance of \$10,000 of bonds for street paving.

Bonds to Be Voted.

McKinney, Tex.—Collin county votes June 28 on issuing \$128,000 of bonds for constructing 40 miles of road.

Contracts Awarded.

Lynchburg, Va.—State Highway Commissioner awarded contract for macadamizing to cost \$8900.

Baltimore, Md.—Board of Awards awarded contract at \$69,700 for paving with sheet asphalt.

Memphis, Tenn.—City awarded contract for paving 18 streets; cost \$350,000.

Dallas, Tex.—City awarded contract at \$48,500 for paving with creosoted wooden blocks on concrete foundation.

Butler, Mo.—City awarded contract for 11,000 square yards of brick paving.

Abilene, Tex.—City awarded contract at \$45,000 for bitulithic street paving.

Mercedes, Tex.—American Rio Grande Land & Irrigation Co. awarded contract for laying cement sidewalks.

Terrell, Tex.—City awarded contract for paving one mile of sidewalk.

Galveston, Tex.—City awarded contract at \$71,000 to construct 16-mile road and at \$79,000 to construct another road, length of which is not stated.

Rome, Ga.—City awarded contracts at \$23,000 and \$8300 for bitulithic paving on concrete base.

Contracts to Be Awarded.

El Paso, Tex.—City opens bids June 2 for paving Missouri street.

Washington, D. C.—Commissioners open bids June 4 for laying cement sidewalks.

Hickory, N. C.—City opens bids June 14 for street improvements.

Abingdon, Va.—Washington county will improve roads; cost \$15,000.

Selma, Ala.—Wilcox Realty Corporation opens bids June 10 for street grading.

Roanoke, Va.—City invites bids for paving several streets; \$285,000 of bonds recently voted.

Little Rock, Ark.—City will construct vitrified brick pavements on concrete foundation; amount available \$40,000.

Canadian, Tex.—City will expend \$3000 to improve streets and crossings.

Lexington, Ky.—City opens bids June 9 for improving Limestone and Short streets.

Duncan, Okla.—City opens bids June 15 for grading, guttering, etc., on certain streets.

Nowata, Okla.—City opens bids June 13 for constructing 38,000 square yards of brick pavement, combined curb and gutter, and storm sewers.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BIG TRACTION PLANS.

McKinley System Spending Several Millions for St. Louis Terminals.

Considerable interest is manifested at St. Louis in the extensive work which is being done there by the Illinois Traction Co., otherwise known as "the McKinley system," because Wm. B. McKinley of Champaign, Ill., is its president. A report from St. Louis says that the bridge which the company is completing over the Mississippi River to reach its terminals in the city will cost \$2,500,000, and it will be even a greater structure than the bridge at Thebes, Ill., which is now said to be the most noteworthy of the various bridges over that waterway. The traction bridge will accommodate not only the railway, but wagons and other vehicles, and the facilities of the company at St. Louis will constitute an extensive terminal system, including freight yards, a freight station, an express depot, a large passenger station down town and a smaller passenger station, besides yards for handling special classes of freight. The company will provide service by suburban trains as well as for long distances.

The Illinois Traction Co. has 530 miles of line, and controls about 25 smaller companies between St. Louis and Chicago. In time it will have a through line connecting those two cities. The company also contemplates building a line from St. Louis westward across Missouri to Kansas City, about 250 miles, and it is likewise considering a line from St. Louis to Cairo, Ill.

An important feature of the company's work at St. Louis is the fact that it will provide terminal facilities for other railroads—either steam or electric—which may wish to enjoy them, although steam locomotives will not be allowed to cross the bridge, but the traction company will receive cars or trains from other lines and handle them to and from the terminals with electric locomotives. It is said that the total cost of its improvements at St. Louis will be about \$6,000,000.

New Equipment, Etc.

Orders for railroad equipment have not been either so frequent or so large during the last week or two as they were earlier in the spring. Among the contracts recently reported are the following:

The Harriman lines have ordered from the American Car & Foundry Co., St. Louis, 5750 box cars of 50 tons each, 1000 automobile cars of 50 tons each, 1800 stock cars of 40 tons each, the latter to have steel underframes and the former to have Bettendorf under and side frames; also 65 caboose cars with steel platforms; from the Bettendorf Axle Co., Davenport, Iowa, 1325 flat cars of 50 tons capacity, with Bettendorf underframes; from the Rodger Ballast Car Co., Chicago, 1200 all-steel Hart convertible cars of 50 tons capacity; from the Cambria Steel Co., Cambria, Pa., 150 hopper bottom coal cars of 50 tons capacity with steel underframes, 750 steel underframe tight bottom gondola cars of 50 tons capacity and 400 steel underframe drop-bottom gondola cars of 50 tons capacity.

Delivery is to be made from August to November, and considerable of the equipment will go to the Louisiana and Texas roads of the Harriman system.

The Morgantown & Dunkard Valley Railroad is reported in the market for a light switching locomotive, also for cars. Address Morgantown, W. Va., J. Ami Martin, general manager.

The Louisville & Nashville Railroad is

reported building 1400 cars (instead of 1200, previously reported) at its own shops, 700 at Louisville, Ky., and 700 at New Decatur, Ala.

The Pennsylvania lines west are reported in the market for 7000 tons of bridge steel.

The Southern Railway, according to a market report, has ordered 100 tons of steel from the Phoenix Bridge Co., Phenixville, Pa.

The Colorado Southern lines are reported to have ordered 850 tons of structural steel from the Wisconsin Bridge Co., Milwaukee, Wis.

The Lexington Railway of Lexington, Ky., will, it is reported, purchase a snow sweeper.

The Sheffield Company, Sheffield, Ala., is reported in the market for a cinder car.

Gasoline Cars at Washington.

The Baltimore & Washington Transit Co., which has built a suburban line between Washington, D. C., and Takoma Park, a distance of several miles, has received some gasoline motor cars for use on the road. These vehicles are about 30 feet long and 8 feet wide. Each is equipped with two gasoline engines of 40 horsepower, giving a speed of 20 miles an hour. Acetylene gas is used for lighting. All the mechanism is beneath the floor of the cars, the entrance to which is in the center instead of at either end. They were built by the John Stevenson Company, Elizabeth, N. J.

As indicated by its title, the Transit Company contemplates at some time the extension of its service from Washington to Baltimore, although at present its business will be only in the suburbs of Washington. Henry W. Williams of Baltimore is president, and Wm. A. Mellen of Washington is vice-president and general manager. The line was built by W. H. Allen.

IMPORTANT COAL ROAD.

Southern Railway Will Soon Complete and Operate the Holston River Line.

The Southern Railway Co. expects to soon put in operation the Holston River Railway, which has been under construction for several years between Moccasin Gap, Va., and Bulls Gap, Tenn., 47 miles, as the work has now reached a point where its early completion is assured.

The significance of this line lies in the fact that it will provide an important route from the coal fields in the southwestern part of Virginia down through Tennessee to Atlanta and other important points in the eastern part of the South. Construction of the road was begun about five years ago by an independent company, which turned it over to the Virginia & Southwestern Railway, which did some work on it between Moccasin Gap, Va., and Persia, Tenn. Later the Southern Railway acquired the Virginia & Southwestern, and after the panic resumed construction on the new road, extending it beyond Persia to Bulls Gap, on the main line of the Southern.

Besides being an important coal route, the new road will provide transportation facilities for a region rich in agricultural resources. It is built on favorable grades because of its location in the Holston Valley, and it will therefore be particularly well suited for the handling of coal trains.

Pine Bluff & Northern.

The Pine Bluff & Northern Railway Co. has been chartered in Arkansas to build its proposed line from Pine Bluff to Searcy, about 70 miles, with a branch about 25 miles long to Little Rock, Ark. Connection will be made at Searcy with the Missouri & North Arkansas Railroad,

and it will also intersect the Rock Island, the Cotton Belt and the Iron Mountain lines. It is said to be the intention of the company to absorb the Meto Valley Railroad, recently built from McCleanor, Ark., southward about 16 miles. The contemplated branch is not to be constructed until the main line is finished. The incorporators are W. J. Miller of Lamar, Mo., president; W. M. Kavanaugh of Little Rock, Ark., first vice-president; C. P. Harnwell, also of Little Rock, secretary, treasurer and general counsel; F. C. Kyte and T. M. Fletcher.

Railway and Lighting Deal.

In connection with the purchase of the Salisbury & Spencer railway and lighting properties at Salisbury, N. C., by the Piedmont Railway Co., it is stated that the new owners will make extensive improvements to the gas plant, extending mains and otherwise enlarging it. This is the company which is constructing a street railway in Concord, N. C., and it is anticipated now that the contemplated interurban road between Concord and Salisbury will soon be completed.

The property purchased includes an electric railway from Spencer via Salisbury to Fulton Heights Park, the electric-light system of both Spencer and Salisbury and the gas works of Salisbury, which supply both that city and Spencer. The properties were bought from the firm of Edward Dean & Co., bankers, Grand Rapids, Mich.

The officers of the Piedmont Railway Co. are W. F. Snider, president; T. H. Vandervord, vice-president; T. J. Jerome, secretary. M. L. Jackson of Salisbury and T. D. Maness of Concord are also interested.

Atlanta's New Freight Depot.

The Southern Railway Co.'s proposed new freight station in Atlanta, which is to be erected on property adjoining the passenger terminal, will be 700 feet long, 50 feet wide and two stories high. It will extend along Madison avenue from Mitchell-street viaduct to the Peters-street viaduct, and will have 60,000 square feet of space. At the Mitchell-street end it will be four stories high, to give office room.

This building will be used exclusively for inbound freight, as there is already an outbound freight station immediately back of the site for the new structure, and the company is also erecting at the Inman yards a large transfer station for the handling of package freight passing through Atlanta. To provide room for teams the new building will be set back 37 feet from the street line. Freight will be delivered from the second floor, which will be on the street level of Madison avenue, upon which the station will front.

C. & O.'s Line to Wellston, O.

It is reported that the Chesapeake & Ohio Railway will build its contemplated northward extension to Wellston, O., by bridging the Ohio River at Sciotoville. Engineers for the company are reported to have made surveys and staked out a route in the immediate vicinity of the proposed bridge. If the extension is built by this route it will require the construction of about only 30 miles of new line in order to reach Wellston, on the Hocking Valley road, while the route previously reported under consideration is via Symmes Creek, some miles eastward, and which would demand the building of 50 miles of new road. It appears, however, that the matter is not yet definitely decided as to the precise route.

Electric Combine at Athens, Ga.

The Athens Railway & Electric Co. of Athens, Ga., has been authorized to issue

\$750,000 of common stock, \$300,000 of preferred and \$825,000 of bonds. The company will take over, according to a dispatch from Athens, the Athens Electric Railway and also the James White Power Co. The combination will include the power plant at Mitchell's Bridge, the new plant at Barnett Shoals, the plant and equipment of the old company, besides valuable franchises, etc. The officers of the new company are William T. Bryan, president; J. Y. Carithers, first vice-president; C. D. Flanigan, second vice-president; John White Morton, secretary; C. D. Cox, treasurer.

New Union Station at Memphis.

Bids have been invited for the construction of a station building for the new Memphis Union Station Co. at Memphis, Tenn. The proposals are to be submitted by Thursday, June 9, at noon. The main building will be three stories high and will measure 284x88 feet; it will have a covered concourse 280x75 feet. The express building will be one story in height, 200x40 feet.

The exteriors of these buildings will be of cut stone and the interiors will be finished in the best modern fireproof construction. Plans were prepared in the office of W. H. Courtenay, chief engineer of the Louisville & Nashville Railroad at Louisville, Ky. J. L. Lancaster of Memphis is president of the Union Station Co.

Toccoa to Carnesville.

The Carnesville Railway, which is to be built from Toccoa, Ga., via Mize and Red Hill to Carnesville, Ga., 20 miles, will connect with the Southern Railway at Toccoa and will run through a fine agricultural country. Construction will not be difficult, as both cuts and fills will be shallow. The date of opening bids for construction is not yet settled. One bridge will be required (about 175 feet long) over the North Broad River. W. S. Erwin of Clarkesville, Ga., and others, as heretofore reported, are interested.

Cotton Belt's New Terminal.

A report from St. Louis says that the St. Louis Southwestern Railway, Cotton Belt Route, will spend a total of about \$2,250,000 for its contemplated new freight terminals there. The sum of \$1,250,000 was paid for the site, which consists of several pieces of property bounded by Florida, Dickson, Lewis and Main streets. It is about 1000 feet long by 275 feet wide. The improvements will cost about \$1,000,000. The new terminal is said to be made necessary by the increase of business of the company.

Extension to Iron-Ore Fields.

An official of the Atchison, Topeka & Santa Fe Railway says that the question of building an extension into the iron-ore fields of Cass county, Texas, is still being considered by the company, but a decision is not yet reached.

This extension will probably be made from Plainview northward, and, as previously reported, is expected to result in extensive iron developments and possibly the erection of a blast furnace at some convenient point. C. M. Schwab of the Bethlehem Steel Co. and associates are said to be interested.

Dallas to Palestine.

C. A. Sterne, secretary of the Palestine (Tex.) Board of Trade, says that by invitation of the Dallas Chamber of Commerce a delegation of 18 representative members of the Palestine board met the members of the other organization on May 17. They considered the question of building a direct railway from Dallas to Palestine, and a committee of five members from Dallas

and three from Palestine was appointed to prepare a plan for organization, which will be reported at a meeting to be called.

A Short Interurban.

The plan of the Hammond Interurban Railway Co., Hammond, La., is to build a line of four miles from Hammond via Natalbany to Genesee, La., including one wooden bridge. Contract is not yet let. The country is level. Connection will be made with the New Orleans, Natalbany & Natchez Railroad. The officers are: President, W. E. Libby; vice-president, B. H. Brooks; treasurer, T. W. Cate; secretary, F. G. Bueler.

Rock Island to the Pacific Coast.

The Rock Island system, according to a report from El Paso, Tex., may build a western extension to the Pacific coast, or else to connect with some independent line which will enable it to reach there. This extension, it is said, may be built from either El Paso or some point in New Mexico.

Extension to Birmingham Completed.

The Atlanta, Birmingham & Atlantic Railway, according to a press report from Birmingham, Ala., has completed its extension from Bessemer to that city, and will soon begin the operation of trains over its own line into Birmingham. For some time the road has been using the Louisville & Nashville tracks from Pelham, Ala., into the city.

Wants American Machinery.

Andrea Monsello, via Porta Palatina 2, Turin, Italy, writes the MANUFACTURERS' RECORD:

"I have special interest in the goods here enumerated, being my business already in these branches: Sewing machines, embroidery machines, knitting machines and machines for other manufacturing purposes; also carpet sweepers, cleaners, cleaning and washing machines, small machines for family use, and novelty machines."

Products from Cottonseed Hulls.

The establishment of a plant at some locality in the cotton region for the purpose of separating cottonseed hulls into cotton fiber for the manufacture of paper and into hull bran for cattle feed is said to be contemplated by H. H. McIntire of New York city. Current reports state that Mr. McIntire is investigating transportation facilities and other conditions at various Southern points with a view to selecting an advantageous location, and will expend \$50,000 to establish the plant.

It is announced that the Board of Trade of Winston-Salem, N. C., is so deeply interested in the question of improved highways that it has bought an automobile, which will represent it in the 1910 Atlanta-New York tour.

Within the Norfolk section of Virginia there are about 400 industries, not including the navy-yard at Portsmouth, with an aggregate capital of 16,767,298 and paying \$11,190,807 to 16,361 employees.

The H. K. T. Mining & Lumber Co. of Huntington, W. Va., has incorporated with a capital stock of \$100,000. Among its incorporators are L. R. Via, G. E. Kesterson, S. H. Mallory and associates.

Plans are making for the establishment of a colony of Hollanders on a tract of 10,000 to 15,000 acres of land somewhere in Louisiana.

Since the first of the year \$11,000,000 have been invested in new enterprises in South Carolina.

MINING

West Virginia Mining.

At the summer meeting of the West Virginia Mining Institute at Bluefield next week papers will be read by J. C. W. Greth, Pittsburg, Pa., on "Mine Water Softening and Purification for Coal Mine Operations;" by George S. Rice, mining engineer, United States Geological Survey, Pittsburg, Pa., on "Safety Chambers in Mines;" by W. S. Mayers, Consolidation Coal Co., Fairmont, W. Va., on "Coal Mine Equipment;" by John Luther Vance, president Ohio Valley Improvement Co., Columbus, O., on "The Relation of the Deep Waterways of the Mississippi to the Waterways of West Virginia;" by J. W. Heron, allotment commissioner C. & O. R. R. Co., Huntington, W. Va., on "Allotment of Cars for Coal Mines;" by Charles Dixon, superintendent mines, Low-Moor Iron Co., Low-Moor, Va., on "Languages a Factor of Safety and Profit in Relation to Coal Mines;" by Dr. I. C. White, State Geologist, Morgantown, W. Va., on "The Geology of the Bluefield Region and the Pocahontas Coal Series." Major Charles Lynch of the Medical Corps of the United States Army will be present with a fully-equipped hospital car to demonstrate first aid to the injured, and General Superintendent E. O'Toole of the United States Coal & Coke Co. of Gary, W. Va., will address the institute.

Maryland Coal & Iron Co.

The MANUFACTURERS' RECORD has authentic information regarding the organization of the Maryland Coal & Iron Co. of Frostburg, Md., with a capital stock of \$50,000. This company succeeds Avery & Morgan, miners and shippers of George's Creek coal, and proposes to install new mining equipment and increase the capacity of its mines to 1000 tons of coal per day. It will install 150-horse-power boiler, 100-kilowatt generator, mine hauling motor of 42-inch gauge, mining machines, rock drills, etc., and desires to communicate with manufacturers or dealers handling this equipment. Officers of the company are H. B. Avery, Troy, Pa., president; George Stern, vice-president; W. H. Morgan, secretary, and Louis Stanton, treasurer, all of Frostburg. The officers, with Hugh A. McMullen, comprise the board of directors.

Coal and Coke in West Virginia.

The report of the State Department of Mines of West Virginia for 1909 shows that from 713 producing mines operated by 391 firms, together with miscellaneous operations, the total production during the fiscal year 1909 amounted to 41,603,706 tons, an increase over the previous year of 2,326,756 tons. Its value was estimated at \$39,600,079.20, less the value of coal used at the mines (\$714,385.75), and the value of coal used in coke ovens (\$4,414,559.75). The coke manufactured amounted to 3,125,451 tons, valued at \$5,577,276.63. The increased value of coal over the previous year was estimated at \$2,325,490.96, while the decreased value of coke was estimated at \$838,490.79.

To Develop West Virginia Mines.

Incorporation of the Cornell-Kanawha Coal Co., with a capital stock of \$250,000, has been effected to develop coal lands near Crown Hill, W. Va. Regarding the enterprise the MANUFACTURERS' RECORD is advised that the company has purchased the Equitable Coal Co. and will develop 1250 acres of coal lands to a daily production of 500 tons. Among the incorporators of the company are Frank P. Christian, Scranton, Pa.; John T. Williams, Edward Brewer, S. B. Williams and David A. Jayne, all of Charleston, W. Va.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Buy's Mill and Timber Properties.

The purchase of the plant and timber properties of the Ten Mile (Miss.) Lumber Co. by stockholders of the L. N. Dantzler Lumber Co. of Moss Point, Miss., has been completed. The deal embraces the milling plants, together with about 100,000,000 feet of standing pine timber and 21 miles of standard-gauge railroad and other equipment. It is understood that the purchase price is approximately \$100,000. The plant will be operated under the same name as formerly. It includes a sawmill with 75,000 feet daily capacity, planers and kilns.

A Louisiana Development.

The Delta Land & Lumber Co., with a capital stock of \$250,000, has been incorporated by Greensboro (N. C.) capitalists to develop timber lands in East Carroll parish, Louisiana. It is understood that the company has purchased and secured options on approximately 8000 acres of land, and after removing the timber it is intended to prepare the ground for agricultural purposes. The officers of the company include C. E. Holton, president; L. J. Brandt, vice-president; Dr. J. T. J. Battle, treasurer, and Ernest Clapp, secretary, all of Greensboro.

Ten Years' Building in Roanoke.

Figures compiled in the office of the city engineer of Roanoke, Va., show the number of building permits issued in Roanoke and their value for each of the 10 years 1900-1909, inclusive. The work is divided into three divisions, including residences, business buildings and improvements. Permits for residences during the 10 years amounted to 2252, representing a value of \$3,696,000; business buildings 262, representing a value of \$2,123,600, and improvements 2320, representing a value of \$587,077.

Shipment of Heavy Timber.

On a special order for delivery in Connecticut the Halsey Lumber Co. of Charleston, S. C., has sawed and shipped 700,000 feet bridge and mill timbers whose dimensions run from 12x12 to 18x18 inches. The shipments were consigned to Barker & Co. of Boston, Mass., and the timbers will be used for mill construction and bridge building near Norwich, Conn.

Atlanta's Building Operations.

Since January 1 building operations in Atlanta, as represented by the estimated value of construction for which permits were issued, amount to more than \$3,000,000. As compared with the corresponding period last year, this estimate shows an increase of over \$500,000. For the entire year of 1909 the value of building construction was estimated at \$5,551,951, while it is predicted that for the whole of 1910 it will amount to about \$6,500,000.

Charleston's Lumber Shipments.

Lumber exports from Charleston, S. C., last week amounted to about 3,000,000 feet. Since September, the beginning of the fiscal year, shipments have amounted to approximately 47,000,000 feet, which is an increase over the corresponding period last year of about 9,000,000 feet.

For Willowware Makers.

Henry B. Freeny, Salisbury, Md., desires to get in touch with manufacturers who use willow branches and twigs in their business.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

The Cotton Movement.

In his report for May 27 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 269 days of the present season was 9,875,045 bales, a decrease under the same period last year of 3,146,293 bales. The exports, less 52,292 bales returned from abroad, were 5,469,318 bales, a decrease of 2,378,461 bales. The takings were, by Northern spinners, 1,888,018 bales, a decrease of 644,317 bales; by Southern spinners, 2,024,266 bales, a decrease of 181,808 bales.

The Meritas Mill.

The Meritas Mills of Columbus, Ga., has organized with Alvin Hunsicker, president; H. M. Garlick, vice-president, and W. E. Thatcher, secretary-treasurer. This company's incorporation and plans were announced several weeks ago, and construction will proceed steadily. There will be an initial installation of 10,000 spindles and 170 looms to manufacture the cloth used as the basis of oilcloth. Mr. Hunsicker is general manager of the Standard Oilcloth Co., 320 Broadway, New York.

The Carolina Manufacturing Co.

The Carolina Manufacturing Co. of Aiken, S. C., will build a plant for manufacturing hosiery, boxes, etc., and operate by water and electric power. This company was reported incorporated last month, with a capital stock of \$10,000, by W. H. Hite and others.

Norfolk Knitting Mills Corporation.

The Norfolk (Va.) Knitting Mills Corporation has been chartered with a minimum capital stock of \$50,000 and a maximum of \$120,000; I. Katzenberger of New York, president; Braden Vanderventer, vice-president; C. Brook Johnston, secretary-treasurer.

Will Double Capital.

The Calumet Manufacturing Co. of Liberty, S. C., will double its capital stock (\$78,200) and build a two-story addition. Its present equipment is 8200 ring spindles operated by steam power.

Textile Notes.

L. Poole of Cuba, Ala., is reported as interested in a plan to establish a hosiery knitting mill operated by water-power.

A \$100,000 company will be organized to build a cotton mill at Abbeville, S. C. J. Allen Smith will be president.

Fertilizer Plant for Montgomery.

Current reports announce the intention of the F. S. Royster Guano Co., main offices at Norfolk, to establish an extensive fertilizer factory at Montgomery, Ala. This company operates plants at Norfolk, Baltimore and other Southern cities, and it is stated that the plant to be erected at Montgomery will have a capacity of 40,000 tons. It will be equipped with modern machinery, both for manufacturing the ingredients and mixing the fertilizer, the equipment to be electrically driven. About \$100,000 will be expended.

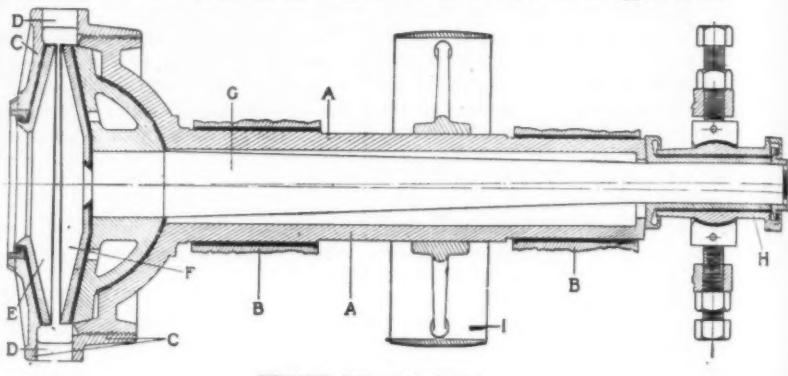
MECHANICAL**Symons Disc Crusher.**

Four accompanying views illustrate the Symons disc crusher, for crushing rejections or small boulders. This crusher has no gear wheel, no eccentric, no rolls, no balls, no hammers, no gyrating head and no swinging jaw. It is built by Symons Bros., Old Colony Building, Chicago, who describe it as follows:

"The crusher may be quickly adjusted to make any size of product desired, down to one-quarter inch. The smaller machines

These discs are of manganese steel, and their concave form is shown in cross-section (see illustration). They are disposed at a slight angle to each other. They revolve rapidly at the same speed, in the same direction. Neither disc vibrates or moves sidewise. Each runs true on its own axis. They revolve in concert.

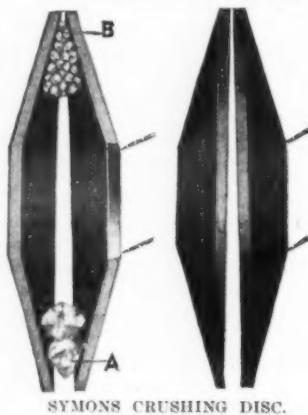
"Now, stone is fed in between the discs through the central opening in one of them—indicated by dotted lines. The stone drops until it is caught between the discs, as at A. It is carried around with them in their revolution to B. Opposite points in the discs at A approach each

**SYMONS DISC CRUSHER.**

will make one-eighth-inch product and less. Turning the cap, C, on its threaded support makes this adjustment. The cap may be locked in any position.

"Wear may be readily taken up by the same method. The crushing discs wear smooth, not in grooves.

"This crusher cannot choke, even on wet material; first, because it spreads or scatters the stone while crushing it, avoiding congestion, and second, because it feeds by centrifugal force, which flings out

**SYMONS CRUSHING DISC.**

other on their way to B, and the stone, carried around between opposing surfaces, is crushed. Opposite points in the discs at B recede from each other on their way around to A, allowing the crushed stone to fly out from between the discs, being flung outwardly by centrifugal force.

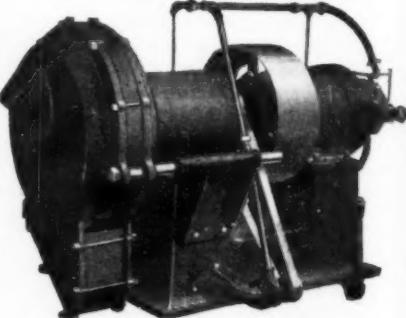
"The crushed stone escaping from between the discs is caught by an encircling, trough-shaped hood, which is stationary, the product being delivered at the bottom sput.

"Note the simple method employed to hold and control these discs.

"Referring to the diagram illustration, showing the vital parts of this crusher:

"A is a hollow shaft, mounted in two bearings, B and B. One end of this hollow shaft is enlarged and threaded. The cap, C, is screwed onto the enlarged end of the shaft, after the manner of a lid threaded onto a fruit jar. This cap has crossarms, D, between which the material escapes. Inside of the cap, C, is fastened one of the crushing discs, E, as shown. This outer disc, E, is thus firmly connected to the hollow shaft, A, and must revolve with it.

"The opposing disc, F, is secured to the

**SYMONS DISC CRUSHER.**

solid shaft, G, which has a half-ball enlargement supporting the disc, and providing a ball-and-socket connection between the inner shaft and the outer shaft. The inner shaft, G, at its other end, extends out beyond the hollow shaft, and is carried in an independent bearing, H. This bearing, H, may be shifted sideways to throw one disc at any desired angle to the other.

"Now, when power is applied to the belt wheel, I, and the hollow shaft rotates, it of course carries with it the cap, C, and disc, E, secured thereto. The inner shaft

is supported by a ball-and-socket joint.

"Its hollow frame comprises an oil tank, and all bearings are automatically lubricated.

"Nothing complicated—simple, strong and very durable.

"Occupies little floor space. Shipped assembled, ready for belt."

"Inside of this crusher are two saucer-shaped crushing discs (see illustration).

and disc, F, tend to revolve, but are not driven positively when the machine is running empty. When, however, stone is introduced between the discs the crushing action immediately makes all parts shown in the diagram rotate together, excepting, of course, the outer bearings.

"Our 48-inch disc crusher takes in 7-inch stone, and will crush the rejections from a large gyratory to any size between 3-inch and $\frac{1}{2}$ -inch. Its capacity when producing 1-inch stone is from 50 to 90 tons per hour. Our 24-inch disc crusher takes in $3\frac{1}{2}$ -inch to 4-inch stone and reduces it to any size down to $\frac{1}{4}$ -inch or even less. Its capacity when producing $\frac{3}{4}$ -inch product is about 20 tons per hour. Our 13-inch disc crusher takes in 2-inch material and reduces it to any size down to $\frac{1}{8}$ -inch and less. Its capacity when making $\frac{3}{4}$ -inch product is about 7 tons per hour."

The Vilter Corliss Engines.

Among prominent designers and builders of Corliss engines is the Vilter Manufacturing Co. of Milwaukee, Wis. This company builds improved high pressure and condensing simple and compound horizontal Corliss engines that embody efficiency, durability and simplicity. An experience of many years has enabled the company to perfect its products, which are largely used in this country and in Canada, Mexico, Central and South America, Europe and Asia. Refrigerating and ice-making machinery, brewers' equipment

"The frame of the heavy-duty type consists of two pieces, the slide barrel and the pillow block.

"The slide barrel is constructed with heavy ribs on top and bottom, and is bored and faced. The cylinder end overlaps the front cylinder head. The other end is

drawn by hydraulic pressure and is riveted. The crankpin has a loose collar held in place by a steel screw, which also holds the center oiler. The pin and screw is drilled to the center for oiling the journal. All journals are highly polished.

"The outboard bearing is heavily con-

structed. The entire valve motion is designed and constructed for high speeds, as well as low speeds.

"The bonnets have large openings to make the packing of the stems easy.

"The stems are forged steel.

"The hooks of the releasing gear are of heavy cast steel or forging, with hardened steel wearing surfaces, which are small square tempered steel plates and are interchangeable on eight sides.

"The hook knock-off bars are steel forgings, and keyed to the valve hook stems, and so arranged that they will work without the aid of springs. The springs, however, are attached as a safeguard in case the edges of the plates wear.

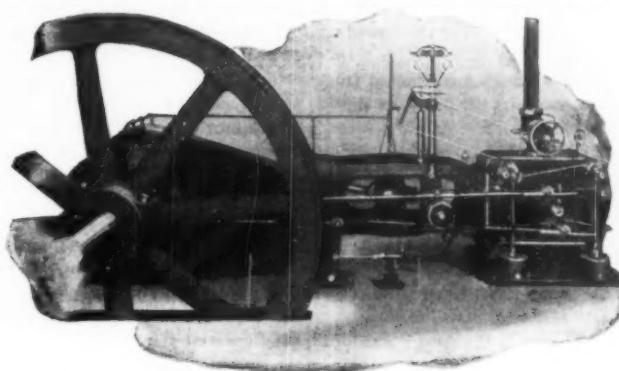
"The dashpot cranks are heavy castings, having square hardened steel trip plates attached, which are also interchangeable, having eight sides to work on.

"The governor cranks have fiber knock-off cams and brass safety cams.

"The valve motion pins are made of steel, and are highly finished. The connecting rods are made right and left, and have heavy brass heads with loose boxes adjustable by set screws secured by jam nuts,

"The steam arms are of heavy construction, having automatic closing pins to press down the valves in case of sticking, and are supplied with hook adjusting screws to adjust the hooks, to properly catch the dashpot cranks.

"The wrist plate is of heavy rib con-



VILTER CORLISS ENGINE WITH HEAVY-DUTY FRAME.

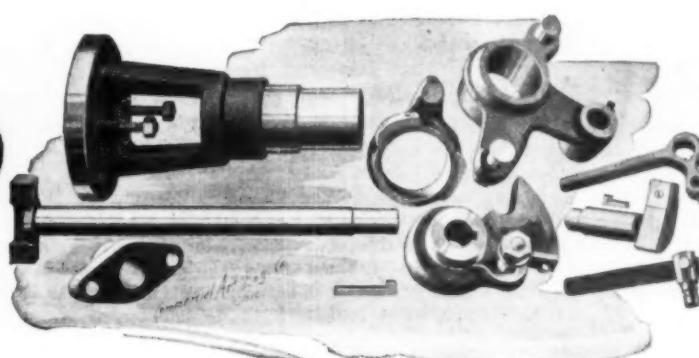
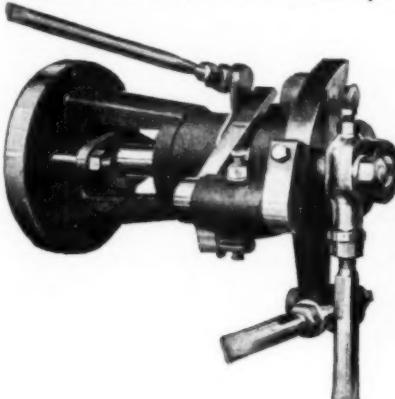
faced male and female on the pillow block and secured with large tap bolts. The crosshead slides are of liberal dimensions.

"The pillow block is constructed with a wide bearing for a continuous base, and is provided with holes for foundation rods. The quarter boxes are lined with best babbitt metal, hammered, bored and scraped to fit the shaft and have ample adjustment. The top quarter box and cap are arranged for a feel-hole.

structed, and is lined with best babbitt metal, hammered, bored and scraped to fit the shaft.

"For adjusting the outboard bearing we furnish a sole-plate with wedge adjustment, allowing the bearing to be raised or lowered, or also shifted sideways. The adjustments are made by set screws, secured by jam nuts.

"The band wheel, rope wheel or flywheel is constructed in halves, turned true



VILTER CORLISS ENGINE VALVE MOTION AND PARTS.

and bottlers' machinery are also made by the company. The Vilter Corliss engine with heavy-duty frame, the type with rolling mill frame, and the engine valve motion and parts manufactured by the company are illustrated by five accompanying views. Describing its engines, the company says:

"The cylinder is made of best selected close-grained semi-steel, making a good wearing surface. The valve ports as well as the cylinder are counterbored at each end, so that when it becomes necessary to re bore same the fit of the bonnets and heads will not be disturbed. The valve chambers are so constructed that the ports come below the centers, so that the steam pressure always keeps the valves against the seats, and consequently will always be tight.

"After the cylinder is machined it is tested under working steam pressure, and while hot is covered with several coats of plastic, non-conducting material and then lagged with a planished sheet steel lagging with polished angle-iron corners.

"The frame of the girder type, up to 42-inch stroke, is cast in one piece. In larger frames the pillow block forms a separate casting, and is attached to the frame by reamed bolts. The slides are cast closed at the ends, and are bored.

"The pillow block is provided with heavy cast-iron shells, lined with best babbitt metal, hammered, bored and scraped to fit the shaft. The wear is taken up by screw adjustment.

"The frame of the rolling mill type is constructed in one piece, with a very liberal continuous base under the full length of the frame and slide. The center line of the frame is constructed low, and is arranged for foundation rods.

"The quarter boxes are lined with best babbitt metal, hammered, bored and scraped to fit the shaft. The wear is taken up by

and balanced, and is bored to a clamp-fit and keyed to the shaft. Large wheels are made in sections.

"All trimmings are nickel-plated, comprising sight-feed lubricator, hand cylinder oil pump and glass body oil cups for all wearing parts, so arranged that they may be refilled or regulated while the engine is in full motion. The crankpin is

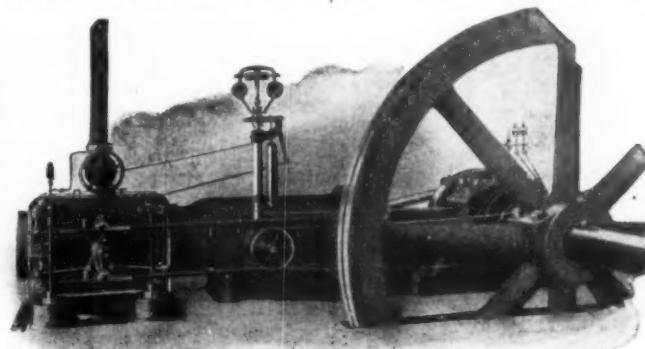
construction, designed for the least possible resistance.

"The dashpots are so designed that it requires only one adjusting screw for each. They are constructed so that they will work with a minimum lift, and are absolutely noiseless in their operations. The plungers working on the inside are absolutely dustproof. The oiling of the dashpots is accomplished by two oil plugs on each dashpot. The oil chambers are large, requiring very little attention. Ball check valves release the superfluous air.

"They are connected to the drop rods by ball and socket joints, and are mounted on a cast-iron base plate.

"The elbow throttle valve is of heavy construction, having large and full openings. The seat is made of phosphor-bronze, which is screwed into the body. The disc is made of phosphor-bronze, and is loose on the stem and slides in the seat. Either can be easily replaced when necessary. The stem is made especially long to bring the hand wheel into a convenient position for operation. The bonnet has a large opening to allow easy access to the brass gland. Dripping from the stem is taken care of by a cup cast into the bottom of the yoke.

"The regular fly-ball type governor is absolutely reliable for regulating the speed of the engine within 3 per cent., and is supplied with a speed change device, allowing a variation of speed of $7\frac{1}{2}$ per cent. up or down. The governor spindle is



VILTER CORLISS ENGINE WITH ROLLING-MILL FRAME.

wedge or screw adjustment. The top quarter box and cap are arranged for a feel-hole.

"The crankshaft is made of best hampered open-hearth steel, turned true. The offsets are made with large fillets. The crank is drawn on by hydraulic pressure and properly keyed. The crank is cast of semi-steel, into which the crankpin is

provided with center oiler, and the cross-head pin with wiper and cup.

"Wrenches are furnished for the parts of the engine that require adjusting.

"A complete set of foundation bolts and plates, also plans for setting the foundation rods, are furnished.

"The valve motion is of very simple construction, and all parts are accessible at

geared to a bushing, on which also the pulley is mounted, which drives the governor by belt from the main shaft.

"The Rites governor is especially designed for close regulation, operating by eccentric-shaped rings, mounted on opposite pivots. The regularity of same can be increased or decreased by weighting the eccentric-shaped rings and adjusting the spring located on the interior of the governor casing.

"The Tolls governor is especially suited for electric work or other close regulation. It is covered by patents of which we have secured the American control. It is equipped with a speed control, allowing 7½ per cent. variation up or down, which is very essential for electrical work to bring the different units into step. All governors are operated and adjusted at the works.

"The piston rod is made of high-grade nickel steel, turned true and highly polished. One end is threaded to fit the cross-head and is supplied with a jam nut. The rod is fitted to the spider, and is pressed in by hydraulic pressure and riveted. A stay pin is driven through the spider and rod. The spider is of heavy construction, having steel set screws with brass jam nuts to center same. The piston is provided with self-adjusting piston packing, held in position by two bull rings and set out by flat steel springs. The joint in the spring ring is closed by a brass keeper. The follower is secured to the spider by heavy steel piston bolts, the heads of which are countersunk into the follower plate, so as to make the piston flush. The bull rings are arranged with flanges overlapping the spider and follower, to maintain the full wearing surface on the cylinder. Large size spiders are made of the box pattern.

"The crosshead is a steel casting, having projecting flanges on the body to hold the shoes in position. The crosshead shoes are of very liberal dimensions, having projecting flanges on the ends, forming a tight fit on the crosshead, preventing end thrust. The yoke lined with best babbitt metal, hammered, turned and scraped true to the slide. The wear of the shoes is taken up by wedges, adjustable by screws and secured by set screws. The piston rod end is threaded and is partially split, having lugs and bolt by which the rod is clamped into the crosshead, allowing a perfectly tight fit when the rod is in place. Loosening the lugs enables the rod to be unscrewed without undue friction.

"The crosshead pin is turned taper at both ends, and is ground into the crosshead. The pin is held in position by a large nut, the end of the pin extending beyond the nut to receive the oiling arrangement for the journal.

"The connecting rod is made of a single forging having solid heads, with brass box lined with babbitt for the crank end, and a solid brass box for the crosshead end.

"Both boxes have wedge adjustment, each operated by two steel adjusting bolts, one acting as a check on the other, facilitating most delicate adjustment.

"The hook rod, connecting the wrist plate with the rocker arm, has a solid hook with safety slide, wearing on a steel roller on the wrist-plate end, and a solid head with brass box adjusted by set screw and jam nut on the rocker-arm end.

"The eccentric rod has a solid head, with brass box adjusted by set screw and jam nut on the rocker-arm end, and double nuts on the eccentric end. The eccentric strap is split, bored true and scraped, to fit the eccentric."

Referring to its condenser, the company says:

"The counter current steam condenser, with all valves attached, allows the exhaust steam to enter near the bottom and the cooling water near the top. A back

pressure or relief valve is provided to allow the exhaust steam to escape into the atmosphere in case the vacuum should for some cause be destroyed.

"Within the shell of the condenser annular and circular shells are arranged alternately, from which the cooling water falls in cascade-like manner, meeting and at the same time condensing the ascending exhaust steam.

"The air and vapors are removed from the top by a small dry air pump, as shown herewith.

"The waste pipe or barometric pipe connected to the bottom of the condenser, for carrying off the water and condensed steam, must be of sufficient length—at least 32 feet from the bottom of condenser to highest water level in sewer—to allow the outflow of the waste water against the atmospheric pressure.

"This condenser is the most economical in operation, because it uses less cooling water, under like conditions, than any other style condenser known. There is no danger of clogging any pipe or valves; even dirty or scaly water may be used for condensing purposes. The air when leaving the condenser passes the cooling water at its lowest temperature, being densest at this point, and therefore greatly reduced in volume, which allows the use of a smaller air pump than otherwise.

"The simplicity of this condenser is evident, and no parts are likely to get out of order. The condenser will suck its own cooling water to a height depending upon the corresponding vacuum as soon as the latter is obtained through priming."

"Verona" Sash-Operating Device.

Architects, general contractors and owners of industrial plants who have encountered the sash problem in industrial plants, prisons, docks and almost every class of building will find it to their interest to note the accompanying view of a continuous line of sash equipped with the "Verona" sash-operating apparatus.

The monitor of the building, which is

opening and closing the sash. This method has not been entirely satisfactory for several reasons: It is too tedious a process where there are a great number of sash; the cords often break; the sash are easily damaged by slamming in a sudden windstorm. The "Verona" sash-operating apparatus operates a continuous line simultaneously, and therefore saves time. The operating hand-wheel is placed at some convenient place for the operator, and the sash will therefore be operated, no matter how inaccessible they may be. The apparatus is self-locking at every point, and cannot be closed by sudden winds.

It is adapted for operating continuous or multiple sash in any kind of a building, and also for sash hinged at the top or bottom or pivoted at the sides. It has been installed in industrial plants, prisons, power-houses, docks, public schools, bank buildings and private dwellings. To meet the varying conditions in these buildings the apparatus is made in a number of sizes. The standard device is made of black iron, but can be furnished when so desired in solid polished brass, bronze finish, nickel-plated, japanned or galvanized.

Among recent installations are: Utah State Prison, Salt Lake City; New Jersey Reformatory, Rahway; estate of John D. Rockefeller, Pocantico Hills, N. Y.; New York Central & Hudson River Railroad, sub-station No. 9, White Plains, N. Y.

This apparatus is manufactured by Isaac Cassidy, Summer avenue and Erie Railroad, Newark, N. J., who will furnish estimates and information upon request.

Unusual Lathe Work.

Illustrative of the capabilities of McCabe's patented "2-in-1" double-spindle lathe are two recent jobs of unusual size. One of these, at the shops of the Johnson-Van Vlaanderen Machine Co., Paterson, N. J., consisted of the preparation of a large cylinder for what is known as a cotton back finishing machine used in dyeing and finishing. This cylinder was of steel, 61½ inches in diameter, 69 inches long,

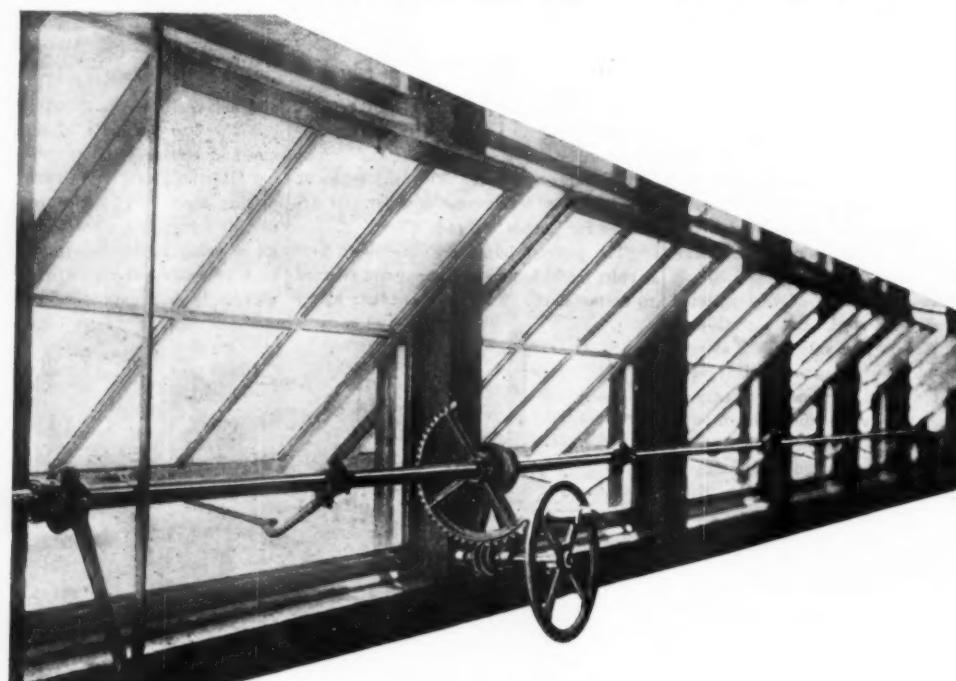
filled every requirement of the customer. Another large and interesting job was by the Empire Machine Works, Brooklyn, N. Y., in turning 48-inch locomotive driving wheels. These wheels had been sent to the shop after two years of constant service in freight terminal work. The tires were extremely hard, because in shifting cars in freight yards the locomotive had to do all the braking, and the slippage between the wheels and the rails had caused chilled spots on the tires, making the work, aside from its size and weight, a very uncommon one. These driving wheels weighed about 8000 pounds. The lathes are made by J. J. McCabe, Hudson Terminal, 30 Church street, New York.

The Ajax Turbine Wheel.

The Ajax turbine water-wheel will be manufactured by the Shelton Water-Wheel & Machine Co., which was incorporated last week with a capital stock of \$50,000 at Richmond, Va. This company has contracted to have the wheel built in the shops of the Wolf Company of Chambersburg, Pa., and later expects to have its own shops. It is stated that the wheel has caused considerable comment among water-power engineers, and that it is designed on radical lines which have resulted in unusually effective results. The company's officers are: President, James Lee Shelton, Merchants' National Bank Building, Richmond; vice-president, J. Horace Crank of Washington, D. C.; secretary-treasurer, John H. Crank of Fredericks-Hall, Va.

A \$4,000,000 Pipe Line.

The Arkansas Natural Gas Co. of Little Rock has awarded contract to Booth & Flinn, Ltd., of Pittsburg for the construction of a pipe line to convey natural gas from Shreveport, La., to Little Rock. The distance is about 269 miles, and contracts for piping include 50 miles of 18-inch, 99 miles of 16-inch, 98 miles of 12-inch and



"VERONA" SASH-OPERATING DEVICE.

the natural outlet for the foul air which has gathered in the building, is in most cases fitted with a continuous line of sash. The height of these sash from the floor makes them inaccessible and are consequently left closed, thus eliminating the purpose of the monitor. The same applies to multiple windows in the sides of buildings. In some cases two cords are attached to each sash for the purpose of

and weighed about 3000 pounds. It was to be turned and ground. The company attempted to have the work done in some of the larger shops in Paterson, but none could guarantee the work would be as accurate as required. The company then determined to block its McCabe double-spindle lathe and undertake the work on it. So successful was this that when finished the surface was faultless and smooth, and

22 miles of 10-inch mains. About \$4,500,000 will be the cost of pipe, fittings, valves, compressing station, etc.

It is reported that Capt. J. T. Jones, who has been active in Mississippi development, will establish early in the fall a line of steamers between Gulfport, Miss., and Bremen, Antwerp, Rotterdam, the Hague and Hamburg.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

The Daily Bulletin of the Manufacturers' Record is published every business day in the year for the purpose of giving the earliest possible news in regard to new industrial, railroad and financial enterprises organized in the South. It is invaluable to contractors, manufacturers, engineers and all others who want to get in touch at the earliest moment with new undertakings or the enlargement of established enterprises. The subscription price is \$25 a year. All advertising contracts in the Manufacturers' Record extending over a period of three months include a subscription for the length of time of the contract to the Daily Bulletin.

BRIDGES, CULVERTS, VIADUCTS

Ala., Huntsville.—City will construct steel reinforced concrete bridge across Pinhook Creek on West Holmes St. recently noted; structure to be 85 feet long, 53-foot-wide arch and 65-foot span; cost \$10,000; construction by superintendent of streets; D. B. Lillard, City Clerk.

Ark., Fort Smith.—Fort Smith and Van Buren district, Roy M. Johnston, secretary, will construct bridge across Arkansas River between Fort Smith and Van Buren; bids to be opened June 13. (See "Machinery Wanted.")

Fla., Tampa.—Hillsboro county will open bids June 7 for construction of steel drawbridge across Six-Mile Creek; George Fuchs, County Engineer. (Recently mentioned. See "Machinery Wanted.")

Ga., Carnesville.—Carnesville & Toccoa Railroad Co. (W. S. Erwin and E. S. Honeycut, Clarkesville, Ga., interested) will construct 175-foot bridge across North Broad River.

Ga., Madison.—Morgan county will construct bridge across Hard Labor Creek, known as Boon's bridge; structure to be 340 feet long and 30 feet wide; bids to be opened June 9. P. G. Walker, chairman, Board of Roads and Revenues of Morgan county. (See "Machinery Wanted.")

Ga., Rome.—Board of Public Works award-

ed contract to Frank Tuthill of Rome to build abutments and approaches for East Bloomfield St. bridge.

Ia., Hammond.—Hammond Interurban Railway Co., W. E. Libby, president, will construct frame bridge.

Mo., Arrow Point (not a postoffice).—St. Louis & Kansas City Electric Railroad Co. of St. Louis and Kansas City, Mo., contemplates construction of bridge across Missouri River.

Okla., Tulsa.—Tulsa county will construct 23 bridges; bids to be opened June 22: W. L. North, chairman Board of County Commissioners. (See "Machinery Wanted.")

S. C., Lexington.—Carolina Engineering Co., Burlington, N. C., recently noted awarded contract at \$11,890 for completion of steel bridge across Saluda River, states that structure will be 540 feet long, with 16-foot roadway; substructure consists of two abutments and three steel piers; piers to be 28 feet high, two at either end and one in middle of river; superstructure consists of two 160-foot spans (pin connected) and 220-foot steel trestle approaches, with steel handrails and steel joists; company ready for bids on piers, fabricated steel, erection and lumber; will furnish drawings and information. (See "Machinery Wanted.")

Tex., Dallas.—Dallas-Cleburne Interurban Railway, G. C. Hamington, president, Indianapolis, Ind., will, it is reported, construct bridge over Trinity River.

Tex., Galveston.—Galveston county will construct wooden bridge over Dickinson Bayou, Perry and Austin League, on extension of Alta Loma and League City Rd.; bids to be opened June 6; John M. Murch, County Auditor. (See "Machinery Wanted.")

Tex., Goliad.—Goliad County Commissioners awarded contract to J. J. Greathouse of Goliad to construct steel bridge across Perdido Creek on Germantown-Fannin Rd., and will construct bridge across Calletto Creek.

Va., Richmond.—City will construct proposed reinforced-concrete or stone bridge connecting wards of city; cost \$250,000; Geo. S. Crenshaw may be addressed.

W. Va., Bluefield.—Norfolk & Western Railway, C. S. Churchill, chief engineer, Roanoke, Va., is, it is reported, preparing plans for bridge and subway, one of which will be adopted.

W. Va., Clarksburg.—Harrison County Commissioners decided to construct \$25,000 bridge across Elk Creek.

CANNING AND PACKING PLANTS

Ia., Delhi.—Dr. Gilbert of Chicago and others purchased Delhi Packing Co.'s cannery and syrup mill; will organize \$200,000 company, enlarge cannery and establish plant for reducing fruits and vegetables to preserves and jellies.

Tex., Corpus Christi.—E. P. Young is promoting establishment of pickling and preserving plant; contemplates erection of \$12,000 pickling and preserving plant. (See "Machinery Wanted.")

Tex., Wichita Falls.—United States Packing Co., Chicago, Ill., will locate packing plant recently reported; construction to begin within 60 days; cost of plant \$300,000; contemplates operation by January 1, 1911.

CLAYWORKING PLANTS

Ala., Leeds.—A. C. Kohn, Selma, Ala., is promoting establishment of plant to manufacture shale bricks; daily capacity 100,000.

Ga., Augusta.—Brick.—Electric City Brick Co. incorporated with \$25,000 capital stock; J. H. Burnside, 262 Broad St., president; W. L. Burnside, vice-president and secretary; J. E. Brown, treasurer.

N. C., Shelby.—Brick, etc.—Piedmont Manufacturing Co. incorporated with \$25,000 capital stock; J. D. Lineberger and others.

Okla., Pawhuska.—Frank C. Nicholson and associates of Iola, Kans., and Kansas City, Mo., interested in establishment of plant to manufacture brick and tile with 100,000 capacity; cost \$100,000.

Tex., Wichita Falls.—O. A. Kentner, Sapulpa, Okla. (recently noted to establish brick plant), and Dr. J. B. Paul, Oklahoma City, Okla., will construct plant with daily capacity of 100,000 bricks; work to begin within next 90 days; plant to be in operation by May 1, 1911; company to have capital stock of \$100,000.

Tex., Wichita Falls.—Brick and Tile.—

Wichita Brick & Tile Co. increased capital stock from \$75,000 to \$175,000 and will erect \$100,000 addition to plant; increase daily capacity to nearly 200,000 bricks.

Va., Berkley.—Bricks.—C. A. Shoop of Shoop-Witthers Company, Suffolk, Va., is reported to establish brick and tile plants.

Va., Wilmett Wharf (not a postoffice).—Brick, Tile, etc.—American Kieselguhr Co. incorporated with \$100,000 capital stock by W. T. Stillwell, president; W. H. Evans, vice-president, both of Wilmett Wharf, and J. D. Jenkins of Index, Va.

W. Va., Wheeling.—Wheeling Tile Co. incorporated with \$75,000 capital stock by S. O. Laughlin, D. Garth Hearne, C. R. Hubbard and others.

COAL MINES AND COKE OVENS

Ala., Ragland.—W. T. Brown will develop coal mines.

Ky., Shamrock.—Shamrock Coal & Coke Co. and Edgewood Coal & Coke Co. have consolidated as Edgewood Consolidated Coal Co., with H. H. Thrasher, president, Knoxville, Tenn.; J. L. Manning, first vice-president, Middlesboro, Ky.; James G. Sterchi, second vice-president, Knoxville, Tenn.; H. M. Johnston, secretary-treasurer, Knoxville, Tenn.; capital stock \$150,000; improvements contemplated; mines are electrically equipped; present output, 15,000 to 20,000 tons monthly, will be increased. (Recently mentioned.)

Md., Frostburg.—Maryland Coal & Iron Co. organized with capital stock of \$50,000; H. B. Avery, president, Troy, Pa.; Geo. Stern, vice-president; W. H. Morgan, secretary; Louis Stanton, treasurer; successor to Avery & Morgan; propose increasing capacity to 1000 tons daily; will probably install 150-horse-power boiler, 100-kilowatt generator, 42-inch-gauge mine hauling motor, mining machines and rock drills. (See "Machinery Wanted.")

Md., Lonconing.—George's Creek Coal & Iron Co., Equitable Bldg., Baltimore, Md., plans improvements to coal property, including railroad connections, additional tipples, new opening in small vein section, etc.

Okla., Headrick.—Tolleson Coal Co. incorporated with \$8000 capital stock by R. E. and W. N. Tolleson and F. A. Edwards.

Tenn., Jacksboro.—Jellico Cannel Co. incorporated by Thomas Zechini, W. H. Jenkins, L. B. Douglas and H. L. Smith.

W. Va., Clarksburg.—Open Creek Coal Co. incorporated with \$50,000 capital stock by H. W. Stafford, W. G. Colburn, J. B. Stafford and others.

W. Va., Clarksburg.—Daniel Coal Co. incorporated with \$5000 capital stock by V. E. Goeke, Daniel Howard, Frederick Howard and others.

W. Va., Crown Hill.—Cornell Kanawha Coal Co. incorporated with \$250,000 capital stock by John T. Williams, Edward Brewer, S. B. Williams, David A. Jayne and others; purchased Equitable Coal Co.; development 1250 acres; daily output 500 tons.

W. Va., Huntington.—H. K. T. Mining & Lumber Co. incorporated with \$100,000 capital stock by L. R. Via, G. E. Kesterson and others.

W. Va., Parsons.—J. B. Jenkins Coal & Coke Co. incorporated with \$50,000 capital stock by W. T. Robinson, Cecil Simpson, S. O. Billings, J. B. Jenkins and others.

W. Va., Piedmont.—Brady Coal Co. incorporated with \$10,000 capital stock by Z. T. Kalbaugh of Piedmont, A. Spates Brady, W. H. Mable and George M. Jacobs, all of Fairmont, W. Va., and others.

W. Va., Piedmont.—Brady Coal Co. incorporated with \$10,000 capital stock by Z. T. Kalbaugh of Piedmont, A. Spates Brady, W. H. Mable and George M. Jacobs, all of Fairmont, W. Va., and others.

W. Va., Ellenton.—J. J. Mims will erect building and install eight Sea Island and two 70-saw short cotton gins.

La., Bogalusa.—Bogalusa Compress & Cotton Products Co. organized with \$100,000 capital stock; W. E. Bickman, president, Hackley, La.; Leroy A. Pierce, vice-president; Christian Olivier, secretary, both of Bogalusa.

Miss., Amory.—Amory Compress Co. recently reported organized with \$50,000 capital stock, awarded contract for erection of building; machinery mainly purchased; L. E.

Luckie, president; E. C. Dalrymple, vice-president; M. E. Gilbert, secretary; E. I. Wygul, treasurer. (See "Machinery Wanted.")

N. C., Stewartsville (not a postoffice).—Carmichael Ginning Co. incorporated with \$10,000 capital stock by J. T. Bostic, H. A. McIntyre and E. H. Kendall, all of Laurinburg, N. C.

N. C., Wadesboro.—J. W. Sullivan is preparing to establish cotton gin; has placed order for machinery with Liddell Company, Charlotte, N. C.; daily capacity 25 bales of cotton.

Okla., Osage.—Osage Land & Development Co., State National Bank Bldg., Oklahoma City, Okla., plans construction of cotton gin. (See "Land Development.")

Tex., Belton.—Farmers' Co-operative Mill & Gin Co. recently reported being organized with \$20,000 capital stock by C. F. Denny and others, will operate quadruple 80-saw blast mill, operated by electricity, with steam reserve power.

Tex., Elliott.—Colony Union Gin Co. incorporated with \$5000 capital stock by C. B. Mason, W. T. Hutchins and A. H. Bates.

Tex., Mart.—Farmers' Gin Co. incorporated with \$15,000 capital stock by W. P. Shelton, W. M. Marley and E. M. Phillips.

Tex., Kemp.—Farmers' Gin Co. incorporated with \$3400 capital stock by T. M. Stubbs, W. H. Bowly, J. W. Stinson and others.

Tex., Victoria.—Victoria Compress Co. will establish compress; capital stock \$35,000; cost of building \$35,000; A. N. Ivancich, president; P. R. Swann, manager-superintendent. (A. N. Ivancich recently noted as proceeding with arrangements for compress.)

COTTONSEED-OIL MILLS

Ala., Montgomery.—F. S. Royster Guano Co., Norfolk, Va., contemplates erecting cottonseed crushing mill. (See "Fertilizer Factories.")

Ark., Arkadelphia.—Producers' Oil Mill & Fertilizer Co. organized with \$50,000 capital stock; D. F. Harris, president, Junction City, Ark.; C. C. Scott, vice-president, Arkadelphia; J. A. Hearn, secretary-treasurer, Junction City, Ark.; C. Wilson, general manager, Arkadelphia; will establish cottonseed oil mill, cotton gin and fertilizer factory.

Ga., Lagrange.—Farmers' Cotton Oil Co. awarded contract to Will Hill Newton Company, Griffin, Ga., for erection of cotton-oil mill; cost \$50,000; brick; will contain two presses; seed and hull house two stories; @x100 feet; daily capacity, 40 to 50 tons; machinery purchased. (Previously mentioned.)

Miss., Aberdeen.—Aberdeen Milling & Manufacturing Co. incorporated with \$35,000 capital stock by F. M. Rogers of Memphis, Tenn.; E. Cahn of Meridian, Miss., and M. D. Landau of Vicksburg, Miss.

N. C., Sanford.—Company is being organized with \$10,000 capital stock; O. D. Barber, president, Goldston, N. C.; Paul Barringer, secretary, Lockville, N. C.; will establish cotton-oil mill.

Tex., Beaumont.—Beaumont Cotton Oil Co. is name of company (Chamber of Commerce recently noted interested) to establish \$100,000 cottonseed oil mill; has placed order for 120-ton mill (including six 15-box presses) with W. P. Callahan Company, Dayton, O.

Tex., Byers.—Commercial Club is promoting establishment of cottonseed-oil mill with \$30,000 capital stock; will erect cement building.

DRAINAGE AND IRRIGATION

Ia., Lake Arthur.—Lake Arthur Irrigation Co. incorporated with \$50,000 capital stock; Edward S. Streator, president; Val A. Miller, vice-president; Winfield S. Streator, secretary; John B. Ferguson, treasurer.

La., Lake Arthur.—Lake Arthur Reclamation Co. incorporated with \$50,000 capital stock; Edward S. Streator, president; Val A. Miller, vice-president; Winfield S. Streator, secretary; John B. Ferguson, treasurer.

Tex., Alvin.—J. C. Kelso, 205 Tremont St., Galveston, Tex., recently noted to receive contract for construction of various drainage canals, states that Alvin district work includes 1,000,000 cubic yards; cost \$110,000; all work to be done by excavation machinery, which is yet to be purchased; F. M. Ragsdale, chairman of district; A. R. Leckle, Bay City, Tex., engineer. (See "Machinery Wanted.")

Tex., Wichita Falls.—Highland Irrigation & Land Co. incorporated with \$325,000 capital stock by J. A. Kemp, Frank Kell, J. J. Cotton and others; company telegraphs Manufacturers' Record that the proposition embraces 1870 acres suburban and irrigated land; 850 acres under ditch; plant ready for operation.

ELECTRIC-LIGHT AND POWER

Ala., Cuba.—L. Poole, Mayor, is reported interested in plan to build water-power electrical plant.

Ark., Camden.—Camden Power Co. incorporated with \$100,000 capital stock; T. J. Watts, president; H. W. Myar, vice-president; George R. Belky, secretary-treasurer.

Ala., Geneva.—Geneva & Enterprise Tractation Co. contemplates, it is reported, construction of power plant on Double Bridge Creek.

Fla., Graceville.—City voted issuance of \$4000 of bonds for construction of electric-light plant. Address The Mayor.

Fla., Milton.—City has plans by Solomon-Norcross Company, Atlanta, Ga., for electric-light plant; estimated cost, \$40,000; H. W. Clark, Mayor. (Recently mentioned.)

Ga., Atlanta.—Coosa Creek Power & Mining Co. incorporated with \$500,000 capital stock by J. R. Gordon, John D. Dickson and Z. W. Summerour.

Ga., Cyrene.—Z. J. Edge, superintendent of Bowen Association High School, estimating on cost of generator, wiring, fixtures, etc., for about 750 lamps; also for steam-heating plant for dormitory; estimated cost, \$25,000.

Ga., Griffin.—Central of Georgia Power Co. of Macon, Ga., awarded contract to Gresham Mfg. Co. of Griffin to erect electric substation; 75x75 feet; brick and cement; cost \$3000; foundation begun.

La., Jennings.—Jennings Electric Light & Power Co. contemplates installation of engine-driven alternating-current generator.

La., New Orleans.—Consumers' Electric Co. purchased site 20x88 feet on Tchoupitoulas St. on which to erect substation; building will be one story; pressed brick; fireproof; ceiling 16 feet high; plans by DeBuyas, Churchill & Labouisse of New Orleans; bids are being received.

Md., Severna Park (not a postoffice).—Severn Realty Co., Oscar L. Hatton, manager, 201-202 Gaither Estate Bldg., Baltimore, is proceeding with construction of electric-light system. (See "Water-works.")

Mo., Tipton.—City voted issuance of \$17,500 of bonds for construction of light and power plant. Address The Mayor. (Recently mentioned.)

Mo., Kansas City.—Electric Power Co. incorporated with \$250,000 capital stock by W. D. Wood, Estel Scott and J. E. Trogodon.

Okla., Arapaho.—City contemplates installation of electric-light plant and water-works; expenditure \$30,000 to \$40,000; will vote on bond issue; O'Neill Engineering Co., Dallas, Tex., preparing plans; M. C. Main, Mayor.

Okla., Cherokee.—City has engaged Burns & McDonnell, Kansas City, Mo., as engineers in charge of erection of electric-light plant and in completion of water-works and sewerage system recently noted; cost \$50,000.

Okla., Muskogee.—Muskogee Gas & Electric Co. increased capital stock from \$1,500,000 to \$4,000,000.

S. C., Greer.—Greer Light & Power Co. incorporated with \$25,000 capital stock by Z. V. Taylor, Greensboro, N. C., and N. A. Cake, Charlotte, N. C.

S. C., Greer.—Greer Light & Power Co., incorporated with \$25,000 capital stock by Z. V. Taylor, Greensboro, N. C., and N. A. Cake, Charlotte, N. C., has secured 10-year franchise.

Tenn., Elizabethton.—Doe River Lighting & Power Co. will change name to Watauga Power Co.; awarded contract to W. J. Oliver, Knoxville, Tenn., for construction of power plant; details of initial development for 3000 horse-power were reported recently; plans involve two more developments (Doe River and Watauga River) of 6000 horse-power; J. H. Grayson is general manager. (Other particulars reported recently.)

Tenn., Livingston.—Livingston Light & Power Co. incorporated with \$15,000 capital stock by H. E. Speyer, F. E. Bracey, D. W. Harmon, W. H. Estes and M. H. Hankins; to develop water-power for generating electricity.

Tenn., McKenzie.—City is considering proposition for construction of electric-light system. Address The Mayor.

Tex., Coleman.—City will vote June 11 on issuance of \$20,000 of bonds for construction of electric-light plant. Address The Mayor.

Tex., Conway.—T. M. Wright, Wimico, Va., will establish plant and furnish power and electric lighting to Conway, Panhandle and Claude.

Tex., Terrell.—City voted issuance of \$8000 of bonds for improvements to electric-light and water-works systems, including brick power-house. Address The Mayor.

Tex., Waco.—City contemplates purchase of electric-light plant. Address The Mayor.

Va., Luray.—City will open bids June 27 for lighting streets. T. A. Smoot, Mayor. (See "Machinery Wanted.")

FERTILIZER FACTORIES

Ala., Montgomery.—F. S. Royster Guano Co., Norfolk, Va., will build \$100,000 fertilizer plant with annual capacity of 40,000 tons; contemplates erecting cottonseed crushing mill; all electrically driven.

Ark., Arkadelphia.—Producers' Cotton Oil & Fertilizer Co. organized with D. F. Harris, president, Junction City, Ark. (See "Cotton-seed Oil Mills.")

S. C., Orangeburg.—M. O. Dantzler will establish fertilizer-mixing plant.

FLOUR, FEED AND MEAL MILLS

Ga., Perry.—J. H. Davis and J. A. Davis will establish roller flour mill.

Miss., Maben.—D. F. Holland will establish flour mill.

Miss., Purvis.—James Hand & Co. will establish flour mill; John W. Woodward, manager; will erect 40x80-foot frame building; machinery to be installed; contemplate opening machinery bids in December. (See "Machinery Wanted.")

N. C., Sanford.—W. C. O'Connell, R. F. D. No. 1, Fuquay Springs, N. C., is interested in establishment of roller flour mills; wants prices on engines, boilers and other machinery. (Recently mentioned under "Machinery, Proposals and Supplies Wanted.")

Okla., Martha.—Martha Alfalfa Milling Co. incorporated with \$15,000 capital stock by W. H. Holley of Martha, J. J. Edwards and I. J. Rutherford of Mangum, Okla.

Tenn., Memphis.—Memphis Mfg. Co. incorporated with \$10,000 capital stock by Herbert Garraway, J. H. Watson, Calvin Perkins and others.

Tex., Aubrey.—Aubrey Milling Co. recently reported incorporated with \$10,000 capital stock, will operate flour mill; J. A. Rhoads, president; T. L. Mullins, vice-president; H. G. Musgrave, secretary-treasurer.

FOUNDRY AND MACHINE PLANTS

Ark., Little Rock.—Sawmill Machinery—Morris Manufacturing Co., 704 State National Bank Bldg., will manufacture drykilns, lumber conveyors and separators; at present work will be done in local foundries and assembled; Gordon N. Peay, president; T. C. Morris, vice-president and manager; George G. Worthen, secretary. (Company recently noted incorporated with \$25,000 capital stock.)

Ga., Moreland.—E. N. Camp & Sons, recently reported incorporated with \$10,000 capital stock by E. N. Camp and others, will erect one 30x100-foot and one 118x100-foot buildings; corrugated iron; concrete-cement foundation; install molding machinery. (See "Machinery Wanted.")

La., Abbeville.—Ritter Company, recently reported incorporated, has elected Frank A. Godchaux president, James McWhan vice-president, Jacob F. Ritter secretary-treasurer; capital stock, \$10,000; has acquired machine shop of J. F. Ritter.

Mo., Chillicothe.—Chillicothe Foundry & Machine Co. (recently reported incorporated with \$15,000 capital stock) purchased Frank Way Foundry and Machine Works and will continue operation; F. B. Wheeler, president; Chas. L. Waite, vice-president-treasurer; L. C. Allen, secretary.

N. C., Greensboro.—Cook-Lewis Foundry Co. increased capital stock from \$25,000 to \$50,000.

Tex., Cleburne.—H. Brokelmeyer will remove foundry and machine shops from Temple, Tex., and more than double capacity of plant; capital stock \$30,000. (Board of Trade recently noted interested in establishment of plant.)

Tex., Corpus Christi.—Brass and Iron.—S. J. Stanzel, Temple, Tex., contemplates establishment of brass and iron foundry.

GAS AND OIL DEVELOPMENTS

Ala., Fayette.—Fayette Oil & Gas Co., Guy R. Johnson, president, Birmingham, Ala. (recently noted organized with \$1,000,000 capital stock to develop lease), contemplates be-

ginning drilling work promptly. (See "Machinery Wanted.")

Ala., Birmingham.—Southern Mineral Development Co. organized with \$1,000,000 capital stock; J. R. Adams, president; W. S. Allen, vice-president-general manager; Marion Allen, secretary-treasurer; will develop 5046 acres of gas and oil leases; office, 1050 Brown-Marx Bldg.

Ark., Little Rock.—Arkansas Natural Gas Co. awarded contract to Booth & Flinn, Ltd., Pittsburgh, Pa., for construction of natural gas pipe line from Shreveport, La., to Little Rock, 269 miles; contractor awarded contract for steel pipe, including 50 miles of 18-inch, 99 miles of 16-inch, 98 miles of 12-inch and 22 miles of 10-inch; cost \$4,000,000, including couplings, fittings, valves, river line, compressing station, right of way, distributing plants, etc. (Recently mentioned.)

Mo., Springfield.—Purity Oil Co. incorporated with \$10,000 capital stock by William Widdin, E. B. Fox and W. R. McCain.

Okla., Howden.—Howden Oil & Gas Co. incorporated with \$10,000 capital stock by Wiley Morris, Cleve Morris and others.

Okla., Oklahoma City.—Capital Oil & Gas Co. incorporated with \$25,000 capital stock by E. R. Mitchell, J. R. Speiman and others.

Okla., Sapulpa.—Big Pool Oil & Gas Co. incorporated with \$20,000 capital stock by Max Meyer, Caesar Wollman, J. Harvey Smith and others.

Okla., Tulsa.—Leschen Oil & Gas Co. incorporated with \$30,000 capital stock by William F. Leschen, A. R. Thomas and P. J. Hurley.

Tex., Batson.—Comet Oil Co. incorporated with \$3000 capital stock by W. M. Stephen, Theodore J. Monihan and T. O. Massey.

Tex., Houston.—Keystone Oil Co. incorporated with \$20,000 capital stock by James M. Barry, Thomas P. Converse and T. F. Boyd.

W. Va., Elkins.—Bingamon Gas Co. incorporated with \$25,000 capital stock by C. S. Robb, David Elkins, Howard Sutherland and others.

W. Va., Charleston.—Standard Oil Co., 29 Broadway, New York, through Hope Natural Gas Co., has purchased, it is reported, Manufacturers' Light & Heat Co. properties, including undeveloped lands, 18 miles of pipe line, other pipe lines, leases, etc.; price rumored to be \$1,000,000.

W. Va., Huntington.—Interstate Gas Co. awarded contract to Booth & Flinn, Pittsburgh, Pa., for constructing 24 miles of 10-inch high-pressure gas mains connecting Huntington with Lincoln county gas fields; will require 16 miles of main to tap producing wells after field has been reached; present flow, 40,000,000 cubic feet gas daily; pipe purchased; entire cost \$250,000.

W. Va., Sistersville.—Chestnut Oil Co. incorporated with \$100,000 capital stock by N. J. Neuenchwander, Tim Cushing, J. C. Jones and others.

W. Va., St. Albans.—Bear Fork Royalty Co. incorporated with \$25,000 capital stock by C. J. Pierson, H. C. Pierson, W. A. Burgess and others.

ICE AND COLD-STORAGE PLANTS

Okla., Okcage.—Osage Land & Development Co., State National Bank Bldg., Oklahoma City, Okla., plans construction of 50-ton ice plant. (See "Land Developments.")

Tex., Karnes City.—Neilhaus & Stickelmeier will erect ice plant.

Tex., San Antonio.—Artesian Ice Co. incorporated with M. E. Postlewaite, Ogden Wilson and W. M. Crehan.

Tex., Transit.—Transit Ice Co. incorporated with \$30,000 capital stock by W. H. Kirkland, J. T. Gribbon and G. A. Berwin.

Va., Berkley.—C. A. Shoop of Shoop-Witers Company, Suffolk, Va., is reported to establish ice and brick plants.

IRON AND STEEL PLANTS

Va., Roanoke.—Rolling Mill—Philadelphia capitalists represented by Charles A. Ball of Roanoke, Jos. S. Hagan of Philadelphia, Pa., and associates purchased West End Rolling Mills for \$400,000; plan extensive improvements and manufacture of railway supplies, including iron and steel rails by new rolling process.

LAND DEVELOPMENTS

Fla., Apalachicola.—Florida Riviera Co. recently reported incorporated with \$150,000 capital stock, will develop land in West Florida; R. C. Packard, president; B. H. Beverly, vice-president; Leland J. Henderson, secretary; W. A. Blount, Jr., treasurer.

Fla., De Soto County.—N. M. Sails, Bowling Green, Fla., representing Northern capi-

talists, purchased 20,000 acres of land in De Soto county for \$160,000.

Ga., Macon.—Suburban Realty Co., recently reported organized, will develop residential section in Bibb county; capital stock, \$150,000; T. J. Carling, president; E. G. Harris, vice-president; W. Dannenberg, secretary-treasurer.

Ga., Tifton.—H. H. Tift will survey and develop 10,000 acres of land; will subdivide into small tracts.

Ga., Omega.—Cobb & Eason, Tifton, Ga., purchased 2100 acres of land near Omega for \$36,000; will subdivide into farms.

Miss., Cleveland.—Cleveland Land & Improvement Co. recently reported incorporated with \$20,000 capital stock by E. B. Hill, D. J. Allen and others, purchased 140 acres adjoining Cleveland; 20 acres donated to county for agricultural school; will develop balance into townsite of 20 acres each.

Miss., Meridian.—C. B. Peschmann & Co., New Orleans, La., purchased 40 acres of land on 5th-street Rd. and Fifty-third Ave.; will subdivide, grade, construct streets and develop as residential section.

Md., Baltimore.—Northwest Construction Co. incorporated by Wm. C. Long, 3706 Plimlico Blvd.; Ernest F. Ohlmeyer, John M. Sessions and others.

Md., Halfway.—Friendship Real Estate & Improvement Co. of Hagerstown, Md., incorporated with \$10,000; will develop 36,000-acre tract of land.

N. C., Asheville.—W. A. Rexford purchased 40 acres of land; will subdivide and develop.

N. C., Southern Pines.—H. E. Cover, Wall St., New York, representative, purchased 5000 acres of land and will develop for fruit farms, etc.

Okla., Osage.—Osage Land & Development Co. incorporated with \$400,000 capital stock; takes over townsite and addition of 267 acres for development; plans construction of lake, hotel, 50-ton ice plant, cotton gin, etc., and securing establishment of various manufacturing industries; president, I. S. Ross; vice-president, Frank V. LaBounty; secretary, Otis W. Gibson, all of Oklahoma City, Okla.; treasurer, H. W. Bigham of Bristow, Okla.; company's offices in State National Bank Bldg., Oklahoma City.

Tenn., Memphis.—Rogers Springs Co. incorporated with \$25,000 capital stock by J. W. R. Avent, H. C. Nall, W. R. Stafford and others.

Tenn., Beaumont.—Company is being organized with \$100,000 capital stock by Clara Chaisson, Mrs. J. C. Houk, W. Houk and others; will cultivate rice, etc.

Tex., Charlotte.—Charlotte Townsite Co. incorporated with \$18,000 capital stock by Jourdan Campbell, T. H. Zanderson and A. L. Matlock.

Tex., Fort Worth.—River Crest Company incorporated with \$67,000 capital stock by William Bryce, Morris E. Byrney and W. T. Humble.

Tex., Fort Worth.—Callan City Company incorporated with \$70,000 capital stock by W. B. Drake, E. F. Fellman and A. C. Preston.

Tex., Galveston.—Texas Land Improvement Co. incorporated with \$25,000 capital stock by C. C. Lucid, Joseph M. Smith and Leo Nichols.

Tex., Houston.—Rio Grande Realty Co. incorporated with \$3000 capital stock by Ned Gill, A. C. Green and W. H. Ward.

Tex., Miami.—Texas Townsite & Development Co. incorporated with \$10,000 capital stock by H. J. Newman, W. S. Martin and R. F. Gliman.

Tex., San Antonio.—Hindes Townsite Co. incorporated with \$50,000 capital stock; Geo. F. Hindes, president, Pearall, Tex.; A. L. Matlock, vice-president, San Antonio; Luther Devilbiss, secretary; will develop 35,000 acres of land for townsite; development in charge of J. F. Edwards, Industrial agent of San Antonio, Rio Grande & Tampico Railroad.

Va., Norfolk.—Highland Farm Corporation incorporated with \$15,000 capital stock; M. A. Davis, president, of Norfolk; J. B. Fordham, vice-president, of Du Bois, Pa.; J. H. Hannah, secretary-treasurer, of Norfolk.

Va., Richmond.—West End Development Co. incorporated with \$20,000 capital stock; W. H. Adams, president; I. W. Fuller, vice-president; Percy Montague, secretary-treasurer.

Va., Vinton.—Vinton Improvement Co. incorporated with \$15,000 capital stock; J. E. Saunders, president; J. H. Scott, vice-president; H. H. Saunders, secretary.

Va., Waynesboro.—Shenandoah Valley Apple Lands Co. incorporated with \$25,000 capital stock; James Craig, president, Waynesboro; W. H. Gardner, vice-president, Basic City, Va.; H. M. Magle, secretary-treasurer, Waynesboro.

W. Va., Charleston.—Dawson Development Co. incorporated with \$50,000 capital stock by J. W. Dawson, H. B. Smith, J. Edmund Price and others.

LUMBER-MANUFACTURING

Ala., Choctaw Bluff.—Choctaw Lumber & Timber Co. incorporated with \$10,000 capital stock by F. M. Jeffries, G. W. Jeffries, M. H. Savel and R. B. Savell.

Ark., Helena.—John M. Davis Lumber Co., recently reported incorporated with \$50,000 capital stock, will continue plant; daily capacity, 60,000 feet hardwood lumber; John M. Davis, president-treasurer; W. E. McFarland, vice-president; E. F. Lyle, secretary.

Ark., Lee County.—Vicksburg capitalists, through Dick Wedge, agent for H. E. French & Co., Memphis, Tenn., secured 800 acres of hardwood timber land in Lee county and will install sawmill.

Ark., Pine Bluff.—J. F. McIntyre & Son, Memphis, Tenn., purchased six acres of land and will establish hardwood mill. (Temporary offices at office of Sawyer & Austin Lumber Co., Pine Bluff.)

Ark., Proctor.—Pemiscot Lumber Co. incorporated with \$50,000 capital stock by A. C. Tindall (president), J. D. Strother and W. E. Elder.

Fla., Armstrong.—Scotland Mills, Middleburg, Fla., will establish sawmill at Armstrong having daily cutting capacity of 15,000 feet pine lumber.

Ky., Somerset.—John Fish Lumber Co. incorporated with \$50,000 capital stock by Beecher Smith, Walter Smith, Walter Cornelison and John Fish.

La., East Carroll Parish.—Delta Land & Lumber Co. incorporated with \$25,000 capital stock; purchased and secured options on about 8000 acres of timber land in East Carroll parish and will develop; after timber has been cut, to improve land for raising crops; C. E. Holton is president; L. J. Brandt, vice-president; Dr. J. T. Battle, treasurer, and Ernest Clapp, secretary, all of Greensboro, N. C.

La., Morville.—Wilmer H. Shields, Natchez, Miss., is promoting establishment of sawmill and construction of tram railway.

La., Opelousas.—Wilson & Cochran Company of Pointe Coupee parish purchased (through Little & Lawler of Opelousas) 2900 acres of timber land for about \$30,000.

La., St. Landry Parish.—George W. Cavin, Nacogdoches, Tex., purchased 30,000,000' feet of pine stumpage.

Miss., Louise.—Barr-Holiday Lumber Co., B. A. Holiday, manager (recently noted to have purchased 3100 acres timber land), will remove 12-inch band mill from Isola, Miss., to Louise and manufacture lumber; daily capacity 35,000 feet of timber; construct five miles of track; R. C. Renfro and J. B. Dalton, engineers in charge.

Miss., Vicksburg.—Kimberly-Wing Company will increase capital stock by \$125,000; \$75,000 of this increase will be expended for installation of additional machinery, including hot-blast rotary veneer drying machine, 130 feet long, costing \$20,000; addition, 210x45 feet to main plant; office building, 30x36 feet; dwellings, lumber sheds, skidways, etc.; plans for betterments submitted to contractors; remaining \$75,000 of additional capital will be invested in buildings and machinery for manufacture of veneer doors.

N. C., Creswell.—Pittsburg Lumber Co. incorporated with \$10,000 capital stock by W. W. Welker and others.

N. C., Fayetteville.—David H. Hazlette will install band-saw mill for Russell Lumber Co.; latter will replace former plant with new machinery; cutting capacity 25,000 feet of lumber daily.

N. C., Waynesville.—Richland Lumber Co., recently reported incorporated with \$50,000 capital stock, organized to take over Spahr & Roper's lumber plant; L. E. Spahr, president; H. B. Stillings, vice-president; J. H. Roper, secretary-treasurer.

N. C., Huntdale.—Carolina Lumber Co. incorporated with \$150,000 capital stock by E. Frank Watson, Burnsville, N. C., and others.

Okl., Tulsa.—W. H. Meyers, Columbus, Ky., will establish saw and planing mill.

S. C., Claremont.—Claremont Lumber Co. incorporated with \$7500 capital stock; J. P. Rosmond, president and secretary; J. F. Roberts, vice-president; J. L. Adkins, treasurer.

S. C., Ferguson.—Santee River Cypress Co., recently reported incorporated with \$1,500,000 capital stock, has organized; Francis Beidler, president and treasurer; George Engling, vice-president; M. B. Cross, secretary.

Tex., Del Rio.—Armstrong Lumber Co. incorporated with \$12,000 capital stock by Carl Armstrong, Frank Armstrong and H. B. Armstrong.

Tex., Holliday.—Holliday Lumber & Furniture Co. incorporated with \$20,000 capital stock by E. E. Neale, W. M. Brown and W. T. Finley.

Tex., Houston.—Jones-Hurt Lumber Co. increased capital stock from \$40,000 to \$60,000.

Tex., Temple.—Steele Planing Mill Co. (recently noted incorporated with \$5000 capital stock) purchased plant of City Planing Mill & Lumber Co.; E. L. Murrell, Jr., president; E. A. Murrell, vice-president; B. C. Steele, secretary.

Tex., Texas City.—Texas City Lumber Co. incorporated with \$10,000 capital stock by E. Nunez, L. M. Matthews and F. C. Plummer.

Va., Emporia.—Emporia Manufacturing Co. will rebuild lumber plant recently reported burned.

Va., Fredericksburg.—W. S. Embrey incorporated with \$100,000 capital stock; A. T. Embrey, president; A. W. Embrey, vice-president; W. S. Embrey, secretary-treasurer.

Va., Norfolk.—Phillips-Maboney Company awarded contract to S. B. Hutchins of Norfolk to construct lumber plant on High St. extended; fireproof construction; cost \$15,000; plans by E. Overman, Portsmouth, Va.; W. P. Dickenson, Portsmouth, engineer in charge; will install machinery to cost \$25,000; daily capacity 25,000 feet lumber; address proposals to J. W. Phillips. (See "Machinery Wanted.")

Va., Suffolk.—P. F. Brinkley of Brinkley Lumber Co. purchased site and will establish lath and shingle mill.

W. Va., Oceana.—Keys-Fannin Lumber Co., Herndon, W. Va., will establish band mill on Pinhook Creek for cutting large tract of timber.

W. Va., Huntington.—H. K. T. Mining & Lumber Co. incorporated with \$100,000 capital stock by L. R. Via, G. E. Kesterson, S. H. Mallory and others.

METAL-WORKING PLANTS

Ga., Augusta—Oil Cups.—Economy Oil Cup Co. is being organized to manufacture oil cups invented by Eugene M. Crozier and now being manufactured by American Can Co., Atlanta, Ga.; Mr. Crozier will probably be elected president; Frank H. Courtenay, secretary, and M. C. Downing, treasurer; offices in Montgomery Bldg.

MINING

Ark., Zinc—Zinc.—Tar Kiln Mining Co. will erect 100-ton mill.

Ark., Yellville—Zinc.—Federal Development Co., Paterson, N. J., will erect mill, etc.

Ark., Wilmar.—Standard Mineral Co. recently reported incorporated with \$100,000 capital stock, has elected W. E. Graves president; Fred Barnes vice-president, E. Abele secretary-treasurer; will develop mineral lands; machinery purchased; main office address, Memphis, Tenn. (Recently noted at Memphis, Tenn.)

Ga., Atlanta.—Coosa Creek Power & Mining Co. incorporated by J. R. Gordon and others. (See "Electric-light and Power.")

Ky., Olympia.—Olympian Mining Co. incorporated with \$10,000 capital stock by L. K. Elmore, J. R. Spencer and H. T. Spencer.

Mo., Granby—Lead and Zinc.—Fortune Teller Mining & Milling Co. recently reported incorporated with \$8000 capital stock, will develop 20 acres; daily capacity of plant, 60 tons milling dressed and 10 tons zinc ore; A. W. Scholes, president; Julian Courteel, vice-president; W. W. Scholes, secretary-treasurer.

Mo., Joplin—Lead and Zinc.—Comet Mining Co. incorporated with \$25,000 capital stock by J. F. Dexter, A. F. Dexter, C. F. Strohm and others.

Mo., Joplin—Lead and Zinc.—Granby (Mo.) Mining & Smelting Co. will develop holdings in Joplin district; will sink shafts, etc.

Mo., Joplin—Lead and Zinc.—Harmony Mining Co. incorporated with \$50,000 capital stock by Theo. Relling, W. S. Harsha and C. W. Arnold.

Mo., Joplin—Lead and Zinc.—Granby (Mo.) Mining & Smelting Co. will develop holdings in Joplin district; will sink shafts, etc.

Mo., Joplin—Lead and Zinc.—Bray Mining Co. is name of company recently noted to have purchased lease of Daisy Mining &

Milling Co.; will develop 65 acres of land; five to eight tons daily capacity; improvements planned include construction of tramways, installation of new machinery, repair of mill, sinking additional shaft, etc.; Vint N. Bray, manager. (See "Machinery Wanted.")

N. C., Salisbury—Granite.—Chas. J. Harris, Dillsboro, N. C., purchased quarry property of Esson Granite Co. at \$44,000; crushing plant at Stacy, N. C., included in purchase; reported to reorganize company and install new machinery.

W. Va., Wheeling—Limestone.—Wheeling Limestone Co. incorporated with \$25,000 capital stock by F. P. Jones, F. D. Emery, George Rentsch and others.

MISCELLANEOUS CONSTRUCTION

Ala., Mobile—Wharf.—Alba Hunting and Fishing Club, Pheland Dorlon, president, will improve and enlarge wharf; dancing pavilion at end of pier. (See "Miscellaneous Structures.")

Fla., Jacksonville—Dock.—J. H. Boden purchased Riverview Hotel, on Riverside Ave., and contemplates construction of dock full width of property and extend into river such a distance as will secure 20-foot depth of water.

Fla., Tampa—Docks.—Edwards Construction Co. of Tampa has contract and has begun erection of proposed docks at Hendry & Knight terminals eastward for distance of 500 feet; will be used by H. F. Starbuck, forwarding agent.

Fla., West Palm Beach—Palm Beach Improvement Co. awarded contract to Howard Trumbo, Key West, Fla., for 150,000 yards hydraulic dredging in connection with construction of 2000 feet of seawall recently noted; wall will be 18 inches at base, 12 inches at top and 4 feet high; Geo. W. Jonas (care Palm Beach Improvement Co., Box 430, West Palm Beach) will have charge.

La., New Orleans—Wharf.—Port Commissioners, Hugh McCloskey, president, Hibernia Bank & Trust Co. Bldg., will construct William A. Kernaghan wharf; bids to be opened June 14. (See "Machinery Wanted.")

La., New Orleans—Steel Sheds.—Board of Port Commissioners, Hugh McCloskey, president, Hibernia Bank & Trust Bldg., awarded contract at \$33,696.80 to McClintic-Marshall Construction Co., Pittsburgh, Pa., for construction of Branch M King shed, requiring 1,500,000 pounds of steel and 4000 pounds of cast iron; 8th St.-Harmony shed No. 2, requiring 365,000 pounds of steel and 2000 pounds of cast iron, at \$28,820.40; 3d St. shed, requiring 1,060,000 pounds of steel and 4500 pounds of cast iron, at \$30,791.40; Saraparu St. shed, requiring 1,150,000 pounds of steel and 5000 pounds of cast iron, at \$33,726; to Noeke-Richards Iron Works, Indianapolis, Ind., at \$13,091, 6th St. shed, requiring 340,000 pounds of new steel, 2000 pounds of new cast iron and 450,000 pounds of steel and 1500 pounds of cast iron now on hand. (Recently mentioned.)

La., New Orleans—Levees.—U. S. Engineer office, 3338 St. Charles Ave., will open proposals June 27 for constructing 350,000 cubic yards earthwork in Lower Tensas Levee District; H. Burgess, Major, Engineers. (See "Machinery Wanted.")

Okla., Osage—Lake.—Osage Land & Development Co., State National Bank Bldg., Oklahoma City, Okla., plans construction of lake. (See "Land Developments.")

Okla., Tulsa—Subway.—City will construct subway under tracks of St. Louis & San Francisco Railroad; \$25,000 bond issue voted for street subway and viaduct construction. Address The Mayor. (Recently mentioned.)

Tex., Bryan—Levee.—O. E. Gammill, Bryan, has contract for removal of 50,000 yards of dirt at levee on Brazos River.

Va., Richmond—Wharf.—City will construct pile bulkhead along east shore of James River from Gillies Creek to Nicholson St. and deepen river bed alongside wharf to channel; bids to be opened June 7; Charles E. Bolling, City Engineer. (Recently mentioned. See "Machinery Wanted.")

MISCELLANEOUS ENTERPRISES

Ala., Birmingham—Vending Machines.—Standard Vending Co. incorporated with \$30,000 capital stock by J. V. Morris, N. D. Edmondson and D. J. Davis.

Ala., Birmingham—Garage.—J. B. Burgin will erect garage; one story; brick; cost \$7500.

Ala., Birmingham—Garage.—J. B. Burgin will erect one-story brick garage; cost \$7500.

Ala., Montgomery—Plumbing.—H. A. Turner Plumbing Co. incorporated with \$2000 capital stock by Frank Tennille, H. A. Turner and Loda Turner.

Ark., Almyra—Rice Elevator.—G. W. Ross and associates plan establishment of rice elevator; capacity 80,000 to 100,000 bushels; cost \$30,000.

Ark., Little Rock—Laundry.—Aaron Frank, proprietor of Frank's Steam Laundry, 300-10 West 3d St., will erect building to replace present plant; 100x140 feet; two or three stories; cost \$25,000.

D. C., Washington—Crematory.—Isaac T. Brown of New York will rebuild garbage crematory at Benning Rd. and 20th St. N. W., reported burned; loss \$10,000.

Fla., Jacksonville—Garage.—R. L. May will erect one-story frame garage.

Fla., Jacksonville—Garage.—Claude Nolan awarded contract to N. L. Nelson, Jacksonville, to erect garage; two stories; 35x105 feet; reinforced concrete; light buff brick; electric elevators; tile floor.

Fla., West Palm Beach.—H. T. Cummings will erect stone garage and bicycle shop.

Ky., Louisville—Contracting.—L. W. Hancock Company incorporated with \$10,000 capital stock by L. W. Hancock, A. C. Humphreys and P. N. Hancock.

Ky., Louisville—Printing.—Gross, Parsons & Hambleton incorporated with \$8000 capital stock by J. W. Gross, Charles H. Parsons and William V. Hambleton.

La., Baton Rouge—Grain Elevator.—E. E. Israel and R. A. Hart will establish grain elevator.

La., New Orleans—Undertaking, etc.—Groetsch-Leitz Company will erect office, stable, garage and undertaking parlor.

La., New Orleans—Navigation.—Great Southern Navigation Co. incorporated with \$3000 capital stock; Philip D. Slingluff, president; Paul J. Thomson, secretary-treasurer; Donald Slingluff, vice-president.

Md., Baltimore—Gardiner Dairy, 520-24 North Calvert St., will erect milk plant to replace present structure; concrete; fireproof; cold-storage room for storing bottles from washer and sterilizer, and kept at temperature of 32 to 35 degrees; from this room cold bottles pass by conveyor to filler and capping equipment, and then to ultimate cold-storage; laboratory 16x22 feet; pasteurizing department ventilated by washed air.

Md., Baltimore—Contracting.—Andrew Miller Company incorporated with \$10,000 capital stock by Andrew Miller of Lansdowne, Md.; Frank Kraft and John Shafer.

Md., Baltimore—Automobiles, etc.—American Motor Car Co. incorporated with \$10,000 capital stock by Thos. J. Bohannon, 845 Harrison Ave.; Harry Lewy and Manse E. Fulde.

Md., Baltimore—Construction.—Clark Construction Co. incorporated with \$5000 capital stock by Luther M. R. Willis, 213 Courtland St.; Henry Clark and William Hudgens.

Md., Baltimore—Machinery.—Hughes, Dove & Turner incorporated with \$100,000 capital stock by J. Albert Hughes of Third National Bank, Baltimore and North Sts.; Alonso W. Dove and James H. Turner.

Mo., Kansas City—Publishing.—Industrial Press Co. incorporated with \$10,000 capital stock by H. H. Peters, William Bennick and Joan Gibson.

Mo., St. Louis—Automobiles.—Major Motor Car Co. incorporated with \$15,000 capital stock by E. L. Major, W. H. Little and Geo. S. Foster.

Mo., St. Louis—Automobiles.—Boguelin-Buschart Motor Car Co. incorporated with \$5000 capital stock by Louis Buschart, Henry Boguelin and others.

N. C., Rowland—Hardware.—Pleasant-Cox Hardware Co. incorporated with \$25,000 capital stock by W. G. Pleasants, D. A. Cox and others.

Okla., Osage—Bottling Plant.—Osage Land & Development Co., State National Bank Bldg., Oklahoma City, Okla., plans establishment of plant to bottle medicinal water from wells. (See "Land Developments.")

Okla., Oklahoma City—Grain Elevator.—Oklahoma Grain Dealers' Association will erect grain elevator; cost \$200,000.

S. C., Charleston—Publishing.—Evening Post Company increased capital stock from \$15,000 to \$100,000.

S. C., Lancaster—Hardware.—Lancaster Hardware Co. organized with \$16,000 capital stock by Leroy Springs, L. C. Lazenby, M. McD. Brown and others.

Tenn., Knoxville—Plumbing.—Long & Price Plumbing Co. incorporated with \$2500 capital stock by J. F. Long, W. M. Price, George Wilkes and others.

Tenn., Memphis—Garage.—J. M. Goodbar will erect garage; one story; brick; gravel roof; concrete foundation; cost \$4500.

Tenn., Memphis—Grain Elevator.—J. B.

Horton & Co. are receiving bids for rebuilding of elevator recently noted; brick and frame; cribbed or concrete; cost \$20,000; daily capacity, 20 cars grain and feed.

Tenn., Nashville—Grain Elevator.—Cumberland Elevator Co. incorporated with \$5000 capital stock by R. W. Hall, C. D. Jones, Ward Smith and others.

Tenn., Nashville—Steam Laundry.—People's Steam Laundry incorporated with \$5000 capital stock by R. F. Boyd, G. E. Washington, J. B. Battle and others.

Tex., Beaumont—Automobiles.—Standard Auto Co. incorporated with \$3000 capital stock by O. W. Putnam, Charles J. Chalson and Harry McKee.

Tex., El Paso—Stock Yards.—Southwestern Stock Yards Co. incorporated with \$25,000 capital stock by John T. Cameron, L. S. Davis and W. B. Ware.

Tex., Fort Worth—Automobiles.—Lone Star Motor Co. incorporated with \$25,000 capital stock by E. R. Vernon, A. Clay Alexander and M. A. Arnold.

Tex., Houston—Publishing.—Co-operative Publishing Syndicate will be incorporated with \$500,000 capital stock by Melvin C. Churchill, Earnest F. Freeman and Dan Billon; will erect building; Melvin C. Churchill, secretary. (See "Machinery Wanted.")

Tex., San Angelo—Steam Laundry.—J. L. Jennings, Lebanon, Tenn., will establish steam laundry; cost \$10,000.

Va., Moccasin Gap—Telegraph Line.—Western Union Telegraph Co., New York, will construct telegraph line from Moccasin Gap, Va., to Bullgap, Tenn.; distance, 47 miles.

Va., Fredericksburg—Amusement Park.—R. G. McDonnell, L. G. Roach and others leased Island In Rappahannock River and will establish amusement park, erect open-air theater, etc.; cost \$4000 to \$6000.

MISCELLANEOUS FACTORIES

Ark., Brinkley—Rice Mill.—Page Patterson and associates of Memphis, Tenn., will establish \$50,000 rice mill.

Ark., Jonesboro—Creamery Packages.—Creamery Package Manufacturing Co., Blytheville, Ark., will erect plant for manufacturing creamery packages.

Ga., Atlanta—Bolts.—Mt. Carmel Bolt Co., Mt. Carmel, Conn., is reported as to build factory.

Ga., Augusta—Automobiles.—New South Automobile Co. incorporated with \$25,000 capital stock by L. J. Williams, F. W. Edwardy and M. C. Dowling; will establish plant for manufacturing combination automobiles. (Recently noted as Great Southern Automobile Co.)

La., Baton Rouge.—Himes & Atkinson will establish creamery; machinery purchased.

La., Baton Rouge.—Himes & Atkinson will establish creamery.

Md., Baltimore—Drugs.—Elkan Drug Co. incorporated by Albert Lion, 40 South Howard St.; Edward Lion and Wm. Strasburger.

Md., Baltimore—Photographic Supplies.—Schwartzman Manufacturing Co. incorporated with \$30,000 capital stock by Harry Schwartzman, 619 East Baltimore St.; Chas. Schwartzman and others.

Md., Baltimore—Automatic Shoe-polishing Machines.—Automatic Machine Co. incorporated with \$100,000 capital stock by Jacob Hillman, 1927 West Franklin St.; W. Stuart Symington, Jr., and M. Morris Whitehurst; will manufacture automatic shoe-polishing machines.

Md., Chestertown—Gas Plant.—Chestertown Gas Co. is being organized by Homer J. Smith, vice-president of National Light & Power Co., Cleveland, O.; has franchise to establish gas plant for light, heat and power.

Miss., Belzoni—Jewelry and Optical Goods. W. B. Herrington & Co., recently reported incorporated with \$10,000 capital stock, elected W. B. Herrington, president; L. A. Waller, secretary; will manufacture jewelry and optical goods.

Mo., Joplin—Granite Works.—Joplin Granite Co. will establish granite monument plant recently mentioned; occupied rented building at present; will install machinery, including polisher, compressor, gas engine, lathe, etc.; H. H. Wakefield, president; G. A. Nichols, vice-president and treasurer; C. O. Gaugler, secretary.

Mo., Joplin—Gloves.—W. B. Hamilton & Co. of Leavenworth, Parsons and Coffeyville, Kans., will establish branch plant.

Mo., Kansas City—Pumps.—Southwestern Universal Pump Co. incorporated with \$50,000 capital stock by George J. McCutcheon, A. A. Trostle and J. H. Moreland.

Mo., Kansas City—Electrical Novelties, etc.—American Novelty Co., A. C. Deatz, Jr., man-

ager, recently reported incorporated with \$20,000 capital stock, will manufacture mechanical and electrical novelties, burglar-proof safety locks, burglar-alarm systems, etc.; at present having goods manufactured by contract. (Previously noted under "Woodworking Plants.")

Mo., St. Louis—Posts.—Columbia Post Manufacturing Co. incorporated with \$5000 capital stock by Raymond Randolph, H. H. Schroeder and C. H. Krause.

Mo., St. Louis—Bar Fixtures, Brass Goods, etc.—Ferdinand Messmer Manufacturing Co. will erect addition to plant; will install heating boilers, lockers and tool racks.

Mo., St. Louis—Brewing.—Forest Park Brewing Co. incorporated with \$100,000 capital stock; awarded contract to Kellerman Contracting Co., St. Louis, for erection of 150x120-foot fireproof building; cost \$35,000; plans by E. C. Janssen, Chemical Bldg., St. Louis; will install brewing and refrigerating machinery; cost \$60,000; Edward Wagner, president; Edward Wagner, Jr., secretary-treasurer.

Mo., St. Louis—Skirts.—Schoenbrun Skirt Co. incorporated with \$5000 capital stock by Moses Thorn, Jacob Schoenbrun and John Schoenbrun.

Mo., St. Louis—Chocolate and Cocoa.—Stoilewerk Bros. Cocoa & Chocolate Co. incorporated by A. R. Scott, L. K. Williamson, Thos. Walron and others.

Mo., St. Louis—Distillery.—Pearl Brook Distilling Co. incorporated with \$5000 capital stock by Aaron Davis, Sam J. Jacobs and Sid M. Wexler.

Mo., St. Louis—Thermometers.—Ataglance Thermometer Co. incorporated with \$4000 capital stock by Charles H. Dietz, Fritz J. Cartall and Carl Schreiner.

N. C., Kitterell—Medicine.—Mrs. Joe Person's Remedy Co. incorporated with \$150,000 capital stock by T. M. Jordan, Guy V. Barnes and Frank Ward, all of Raleigh, N. C.; acquired Mrs. Joe Person's remedy plant of Charlotte, N. C., for \$100,000, and will operate at Kitterell.

N. C., Rocky Mount—Garments.—Eastern Garment Manufacturing Co. incorporated with \$50,000 capital stock by Jones Smith and others.

N. C., Durham—American Tobacco Co., New York, will, it is reported, expend \$30,000 for improvements to "Bull-Durham" plant, including enlargement of engine-rooms, installation of additional engines, etc.

N. C., Salisbury—Gas Plants.—Piedmont Railway Co. purchased properties of Salisbury & Spencer Railway Co., including gas plant at Salisbury, and will make improvements, extend mains, etc.

Okl., Carmen—Plaster.—Carmen Cement Co. will erect plaster mill; cost \$100,000.

Okl., Enid—Hardware.—D. J. Martin & Son, Springfield, Ill., contemplate erection of building; 150x120 feet; six rooms; manufacturing room, 80x150 feet.

Okl., Nowata—Kansas Torpedo Co. will rebuild nitro-glycerine plant reported burned; loss \$30,000.

Okl., Oklahoma City—Electric Signs.—Federal Sign System incorporated with \$10,000 capital stock by H. A. Stewart, J. W. Lindsey and Ross N. Lillard.

Okl., Oklahoma City—Standard Wall Plaster Co., owned by William P. and A. J. Bannon, Louisville, Ky., will establish branch plant; erect two-story brick building.

Okl., Muskogee—Gas.—Muskogee Gas & Electric Co. increased capital stock from \$1,500,000 to \$4,000,000.

Okl., Tulsa—Sucker Rods.—W. C. Norton of Tulsa, Pa., will establish plant to manufacture devices for pumping wells.

S. C., Chester—Overalls.—A. N. Webb leased space adjoining plant; will install 25 additional machines to double capacity.

Tenn., Bristol—Overalls.—Eagle Overalls Co. increased capital stock from \$25,000 to \$40,000 and will improve plant.

Tenn., Nashville—Automobiles.—Southern Motor Works, 1306 Clinton St., incorporated with \$400,000 capital stock; Exile Burkitt, president; A. H. Robinson, vice-president; J. H. Fisher, secretary-treasurer; W. H. Collier, manager; acquired building and plans removal of Jackson (Tenn.) plant to Nashville; will open bids about June 10 or 15 on machinery for manufacture of automobiles; was recently mentioned as "Southern Motor Car Co." of Jackson, Tenn. (See "Machinery Wanted.")

Tex., Dallas—Bottling.—Coca-Cola Co. will erect bottling plant; three stories and basement; concrete construction; cost \$35,000; plans by Arthur Tufts, Atlanta, Ga.

Tex., Ennis—Overalls, etc.—Ennis Overall & Manufacturing Co. incorporated with \$10,

000 capital stock by Earl Fain, C. I. McCullough and I. Jolesch.

Tex., Haskell—Creamery, etc.—Company organized with N. McNeill president and F. T. Sanders secretary-treasurer; will establish creamery and ice-cream factory; machinery purchased.

Tex., Haskell—Bottling.—Haskell Electric Light & Ice Co. will establish bottling plant in connection with present plant; machinery purchased.

Tex., Haskell—Creamery.—Haskell Creamery incorporated with \$3500 capital stock by N. Neill, R. E. Sherill and F. T. Sanders.

Tex., Houston—Brass Plating, etc.—Southern Brass Manufacturing & Plating Co., 517 Louisiana St., incorporated with \$12,000 capital stock by D. C. Wellin, G. C. Staiti and H. E. Godbold; general brass manufacturing and plating.

Tex., Houston—Hats.—Houston Hat Co. will be incorporated and continue operations; will erect three or four-story building, quadruple capacity and install additional machinery.

Tex., Sweetwater—Creamery.—Sweetwater Creamery Co. (recently reported incorporated with \$6000 capital stock) will manufacture butter and ice-cream; J. V. W. Holmes, president; Dr. J. W. Overton, vice-president; M. B. Howard, secretary; Simon O'Keefe, treasurer.

Tex., Yoakum—Washing Machines.—Steinman & Flint are reported to establish plant for manufacturing washing machines.

Tex., Stamford—Creamery.—Stamford Creamery Co. incorporated with \$10,000 capital stock by A. F. Swenson, Starkey Duncan, C. L. Littlepage and others.

Tex., Texas City—Sugar Refinery.—Texas Sugar Refining Co. incorporated with \$1,600,000 capital stock to establish sugar refinery, to be designed by and erected under supervision of Eastwick Engineering Co., Ltd., of New York; proposed to cover 12 acres of land; daily capacity, 600 tons of sugar; Texas City company is reported to be interested.

Tex., Wichita Falls—Mattresses, etc.—M. A. Brin and W. A. Frear are promoters of company to establish furniture jobbing and mattress manufacturing plant with capital stock of \$40,000.

Tex., Wichita Falls—Drugs.—W. S. Martin and others organized company with \$50,000 capital stock to wholesale and manufacture drugs.

Va., Richmond—R. C. Nelson will erect factory building; one story; brick; cost \$3500.

W. Va., Paden City—Glass.—Ohio Valley Glass Co. has plans by W. J. Alexander, New Martinsville, for addition to glass plant.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, SHEDS, ETC.

Ga., Atlanta—Southern Railway Co., D. W. Lum, chief engineer, Washington, D. C., plans construction of freight terminal; 50x700 feet; two stories; four stories on one end to provide offices; construction details not announced.

ROAD AND STREET WORK

Ala., Birmingham—Edgewood Land & Improvement Co., G. T. Brazelton, treasurer, is promoting construction of speedway, covering two miles of circular track in Shades Valley; lake in center and surrounded by clubhouse, grandstand, garage, etc.; estimated expenditure, \$90,000; R. S. Totten, Birmingham, will be engineer in charge of construction.

Ala., Selma—Wilcox Realty Corporation will grade street at Park Place (suburb); bids to be opened June 10; W. O. Crisman, engineer, Selma. (See "Machinery Wanted.")

Ark., Little Rock—City will construct pavement of vitrified brick on four-inch concrete foundation; date of opening bids not set; amount available, \$40,000; E. A. Kingsley, City Engineer. (Recently noted.)

D. C., Washington.—Bids will be opened June 4 for laying cement sidewalks in District of Columbia; Cune H. Rudolph, John A. Johnston and William V. Judson, Commissioners, D. C. (See "Machinery Wanted.")

Ga., Atlanta—General Council is considering appropriation of \$12,000 of bonds for completing paving of Marietta St.; R. M. Clayton, City Engineer.

Ga., Dalton—City has engaged H. S. Jaudon Engineering Co., Savannah, Ga., as engineer in charge of street paving; cost \$75,000; Paul B. Trammell, Mayor. (Recently mentioned.)

Ga., Dalton—City Clerk invites bids until June 2 for paving Missouri St.; plans and specifications prepared by City Engineer; W. F. Robinson, Mayor.

Tex., Galveston.—Galveston County Commissioners awarded contract to J. C. Kelso of Galveston at \$71,112 to construct main road along Galveston, Houston & Henderson

ment on four-inch concrete base. City invites bids for paving East Willard and Elm Sts., and City Engineer will prepare plans and specifications for several different kinds of pavement; also for Kosuth and Elm Sts., these two streets to be improved next year.

Ky., Lexington—City will improve Lime-stone and Short Sts.; bids to be opened June 9; John Skalin, Mayor. (Recently mentioned. See "Machinery Wanted.")

Ky., Louisville—Board of Public Works awarded contracts aggregating \$11,900 for laying granitoid sidewalks as follows: G. W. Gosnell & Co., Ransdell Ave., 6th and York Sts.; G. W. Younger & Co., Walnut, Garden and 2d Sts., etc.; L. R. Figg & Co., 28th, Fulton and Main Sts., etc.; contractors all of Louisville. (Recently mentioned.)

Ky., Louisville—Board of Public Works awarded contract to Marion County Construction Co. of Louisville at \$1.85 per square yard, total \$29,000, for constructing granitoid pavements on Brook, Jackson, Courtney and Greenwood Sts.; to Barber Asphalt Paving Co., Louisville, at \$1.97 per square yard, total \$40,000, for laying granitoid pavements on Windsor Pl., Willow Rd., Bailey, Galt and Peterson Sts.

Md., Baltimore—Board of Awards awarded contract at \$69,711.14 to F. E. Schneider Paving Co., 331 Law Bldg., Baltimore, to pave Poplar Grove St. with sheet asphalt. (Bids invited recently.)

Mo., Butler—City awarded contract at \$1.69 per square yard to Hippie & McSpadden, Vinita, Okla., for 11,000 square yards brick paving recently mentioned; C. A. Clack, engineer, Nevada, Mo.

N. C., Hickory—City will receive sealed proposals until June 14 for street improvement work; plans, etc., on file at city hall, and at office of Gilbert C. White, engineer, Durham, N. C.; J. D. Elliott, Mayor. (See "Machinery Wanted.")

Okl., Duncan—City will grade, gutter, etc., 7th, 8th, 9th and 10th Sts.; bids to be opened June 15; Erle W. Loyd, City Clerk. (See "Machinery Wanted.")

Okl., Nowata—City will construct 38,442 square yards brick pavement, combined curb and gutter and storm sewers; bids to be opened June 13. Address City Engineer, P. O. Box 847. (See "Machinery Wanted.")

Tenn., Chattanooga—Rossville Road Commission decided that Rossville boulevard be 60 feet wide, of macadam, with top coating of blue limestone; asphalt preparation is to be used in cementing outer coating; 14-foot brick roadway is to be laid in center of boulevard until 17th St. is reached. County Engineer Dodds was instructed to prepare specifications and advertise for bids. (Previously mentioned.)

Tenn., McKenzie—City voted issuance of \$20,000 of bonds for street paving and extension of water-works; when bonds are placed, will proceed with improvements; J. D. Herren, Mayor.

Tenn., Memphis—City awarded contract to H. P. Streicher & Co., St. Clair Bldg., Memphis, to pave 18 streets; cost about \$250,000.

Tenn., Memphis—City awarded contract to M. Larkin & Co. of Memphis at \$22,450 for paving Neptune St. from East Georgia to McLemore Ave. with asphalt, and at \$12,263 for paving Galloway Ave. from Dixon St. to McLean Blvd.

Tex., Abilene—City awarded contract to Tex. Bitulithic Co., Dallas, Tex., at \$150,000 for street paving.

Tex., Dallas—Texas Bitulithic Co. of Dallas submitted bid at \$2.22 to \$2.49 per square yard for paving Reiger and Carroll Aves.; J. B. Winslett, City Secretary. (Recently mentioned.)

Tex., Dallas—City awarded contract at \$48,468.30 to Municipal Paving Co. of Dallas to pave Elm St. from Ervy to Market St., and to Ickander Bros. of Dallas to pave Commerce St. from Harwood St. to Houston & Texas Central Railway; creosoted wooden blocks on concrete foundation. (Recently mentioned.)

Tex., Canadian—City will expend \$3000 to improve streets and crossings; recently noted; J. H. Hood, Mayor.

Tex., El Paso—El Paso county will construct asphalt-macadam road from Clint to Faben, Tex.; bids to be opened June 13; Albert S. Eylar, County Judge. (See "Machinery Wanted.")

Tex., El Paso—City Clerk invites bids until June 2 for paving Missouri St.; plans and specifications prepared by City Engineer; W. F. Robinson, Mayor.

Tex., Galveston.—Galveston County Commissioners awarded contract to J. C. Kelso of Galveston at \$71,112 to construct main road along Galveston, Houston & Henderson

Railway, distance of about 16 miles, and at \$73,537.20 for road from Brazoria county line; mudshell roadway. (Recently mentioned.)

Tex., Houston.—St. Louis & San Francisco Railroad, M. C. Byers, chief engineer, St. Louis, Mo., is arranging to begin proposed paving of Spring St. from Holly to San Jacinto Sts.

Tex., Mercedes.—American Rio Grande Land & Irrigation Co. awarded contract to E. A. Felix of Mercedes to lay cement sidewalks.

Tex., McKinney.—Collin county will vote June 28 on issuance of \$128,000 of bonds for construction of about 40 miles of road. Address County Commissioners.

Tex., Stamford.—City voted issuance of \$10,000 of bonds for street paving. Address The Mayor. (Recently mentioned.)

Tex., Terrell.—City awarded contract for paving about one mile of sidewalks. Address The Mayor.

Va., Abingdon.—Washington county will improve roads; cost \$15,000. Address County Commissioners.

Va., Lynchburg.—P. St. J. Wilson, State Highway Commissioner, Richmond, Va., awarded contract to R. M. Pierce, Lynchburg, for macadamizing extension of road on Campbell Ave. with limestone, 6 inches deep after rolling, 16 feet wide; State Highway Commission, engineer in charge; cost \$8000. (Lately mentioned.)

Va., Petersburg.—Public Improvement Committee will recommend to Common Council construction of granolithic sidewalks on Market, Jefferson, West Tabb and West Washington Sts.; estimated cost, \$8000. Address The Mayor.

Va., Richmond.—H. L. Pettus, Captain and Quartermaster, U. S. Army, War Department, Washington, D. C., will receive bids until June 6 for macadamizing and repairing Government roadway. (See "Machinery Wanted.")

Va., Roanoke.—City invites bids on paving 13th St., Franklin Rd., Holliday St., Church Ave., etc.; \$285,000 bonds recently reported voted. Address The Mayor.

Va., Urbanna.—City will expend \$3000 on street improvements; R. A. Davis, chairman street committee. (Bond issue recently mentioned.)

SEWER CONSTRUCTION

Ala., Foley.—City is receiving estimates on construction of sewer system. Address The Mayor.

Fla., Dade City.—City is considering construction of sewer system. Address The Mayor.

Fla., St. Augustine.—City will vote on issuance of \$100,000 of bonds for construction of gravity sewer system; W. W. Lyon, engineer, Jacksonville, Fla. (Recently mentioned.)

Ga., Dalton.—City has engaged H. S. Jaudon Engineering Co., Savannah, Ga., as engineer in charge of extension of sewer system; cost \$20,000; Paul B. Trammell, Mayor. (Recently mentioned.)

Ga., Savannah.—Chatham County Commissioners authorized construction of reinforced concrete drain in De Renne Canal from Waters Rd. to canal's outlet in Casey Canal, distance of 3300 feet; cost \$20,000.

Ky., Louisville.—Commissioners of Sewerage, Equitable Bldg., will award contracts June 10 for construction of Section "D" northeastern sanitary trunk sewer, contract No. 70, and Section "C" northeastern sanitary trunk sewer, contract No. 69. (See "Machinery Wanted.")

Ky., Lexington.—City will open bids June 3 for construction of sanitary sewers on Maple Ave. and Jefferson St.; John Skain, Mayor. (See "Machinery Wanted.")

Md., Baltimore.—North Forest Park Sewerage Co. incorporated with \$6000 capital stock by Davis E. Weatherby, Palatka Ave., near Garrison Ave.; A. W. Bowling, Harry L. Harman and others.

Md., Centerville.—City voted issuance of bonds for construction of sewer system. Address The Mayor.

Miss., Natchez.—Jefferson Military College will expend \$5000 in improvements, including sewer system and pumping station and remodeling buildings.

N. C., Ashboro.—City will expend \$50,000 to construct sewerage and water-works systems previously noted. (See "Water-works.")

Okla., Cherokee.—City has engaged Burns & McDonnell, Kansas City, Mo., as engineers in charge of completion of sewerage system recently noted. (See "Electric-light and Power Plants.")

Okla., Tulsa.—City will construct storm sewer on Galveston Ave.; bids to be opened June 7; T. C. Hughes, City Engineer. (See "Machinery Wanted.")

S. C., Timmonsville.—City selected J. N. Johnson, Florence, S. C., to prepare plans and estimates for sewerage system and water-works; will expend about \$45,000. (See "Machinery Wanted.")

W. Va., Parkersburg.—Board of Affairs will receive bids until June 3 for construction of eight-inch sanitary sewer on Gould Ave.; about 500 feet, with necessary branches, etc. (See "Machinery Wanted.")

TELEPHONE SYSTEMS

Ark., Altheimer.—Altheimer Telephone Co. will rebuild plant reported burned.

Ky., Athol.—Breathitt Telephone Co. is planning to establish telephone system in Athol; also extensions to Jackson and Elkawata, a distance of 25 miles.

Ky., Cornettsville.—Cornettsville Leatherwood Telephone Co. is reported to construct local telephone system with extensions to Hazard and Jackson, where long-distance connections will be made.

Ky., Hindman.—Hindman-Prestonburg Telephone Co. contemplates, it is reported, improvements and extensions to local system, including new switchboard.

Ky., Owensboro.—Owensboro Telephone Co. incorporated with \$10,000 capital stock by Joshua D. Powers and Samuel M. Heller; reorganization of Kentucky & Indiana Telephone Co.

Ky., Munfordsville.—Hart County Telephone Co. incorporated by S. P. Johnson, L. G. Johnson, Aylete Bowling and others.

Ky., Russellville.—Auburn Home Telephone Co. increased capital stock from \$3000 to \$5000.

Mo., Cuba.—Cuba Telephone Co. incorporated with \$3000 capital stock by A. M. Benton, C. E. Dunkelburg and C. R. Hitch.

Mo., Clayton.—St. Louis County Telephone Co. incorporated with \$20,000 capital stock by J. Arthur Christopher (secretary-treasurer), Henry Kottjohn and Edgar R. Simpson.

Mo., Kansas City.—Missouri & Kansas Telephone Co. will expend \$30,000 for improving service and erecting three-story exchange building; 45x58 feet; cost \$20,000; will install \$35,000 switchboard with capacity of 10,000 subscribers.

Okla., Antlers.—Antlers & Corrine Telephone Co. incorporated by Barney Noel of Corrine, Okla.; Wm. Westmoreland and A. A. Lesueur of Antlers.

Okla., Hobart.—Lawrence Telephone Co. incorporated by G. E. Neal, S. P. Hawes and F. S. Leslie.

Okla., Oklahoma City.—East View Telephone Co. incorporated by H. J. Keelech, M. B. Stotts and G. E. Storm.

S. C., Lexington.—Citizens' Telephone Co., Samuel B. George, manager, will construct telephone line connecting Pellon, Gilbert, Summit, Irmo and other towns in Lexington county; capital stock, \$6000. (See "Machinery Wanted.")

Tex., Abilene.—Abilene Independent Telephone & Telegraph Co. incorporated with \$300,000 capital stock by Henry L. Sibley, Richard T. Shelton, both of St. Louis, Mo.; Stanley A. Jones of Chicago, Ill., and others; acquires Abilene Telephone Co.

Tex., Quanah.—Southwestern Telephone & Telegraph Co., Dallas, Tex., will construct extensions to Lazare, Swearingen and Paducah and establish systems in those towns.

W. Va., Centerville.—R. F. D. from Wayne—Centerville Telephone Co., Chas. Rigg, manager, recently reported incorporated, will open bids June 22 for construction of 40 miles local telephone line (grounded system); Cyrus, Centerville, Richard and Wayne to be connected. (See "Machinery Wanted.")

W. Va., Rosby's Creek.—Tri-District Telephone Co., recently reported incorporated with \$10,000 capital stock, will construct 15 to 20 miles telephone line; R. G. Dakam, president; E. C. Yoho, secretary. (See "Machinery Wanted.")

W. Va., Hosiery.—L. Poole is reported as interested in establishment of hosiery mill, operated by water-power.

Ark., Little Rock—Cotton Fiber.—H. H. McIntire of New York is reported as representing American and foreign capitalists who plan erection of \$50,000 mill to separate cottonseed hulls into fiber for manufacture of paper and into hull bran for cattle feed.

S. C., Aiken—Hosiery, etc.—Carolina Manufacturing Co. (lately reported incorporated with \$10,000 capital stock by W. H. Hite and others) will build plant to manufacture hosiery, boxes, etc.; water and electric power.

S. C., Liberty—Cotton Yarns.—Calumet Manufacturing Co. will double capital stock of \$78,200 and erect two-story addition; pre-

sent equipment \$200 ring spindles, steam power plant, etc.

Va., Norfolk—Knit Goods.—Norfolk Knitting Mills Corporation incorporated with \$50,000 minimum capital stock and maximum \$120,000; I. Katsenberger, president, of New York; C. Brook Johnston, secretary-treasurer; Braden Vanderventer, first vice-president; both of Norfolk.

WATER-WORKS

Ark., Conway.—City will expend about \$35,000 to construct water-works system; will install water station, tank, mains, etc.; date of opening bids not set; Dixon-Smith Engineering Co., St. Louis, Mo., engineer in charge; Howard F. Smith, now making preliminary surveys. (Dickenson & Watkins, Little Rock, Ark., recently noted as supervising engineers.)

Fla., Dade City.—City is considering construction of water-works. Address The Mayor.

Fla., Graceville.—City voted issuance of \$14,000 of bonds for construction of water-works. Address The Mayor.

Ga., Atlanta.—City will construct 8,000,000-gallon horizontal pressure filter plant; bids to be opened June 21; W. Z. Smith, general manager Atlanta Water-Works. (See "Machinery Wanted.")

Mo., Dalton.—City has engaged H. S. Jaudon Engineering Co., Savannah, Ga., as engineer in charge of water-works improvements; city has contracted for 200 tons of 8-inch mains to be laid in First and Second wards. F. L. Dormant, consulting engineer, will prepare plans for separate water plant in Cleveland Park; artificial lake is now located in park, which will be converted into reservoir with capacity of 60,000,000 gallons water; water for this station will be furnished by artesian wells; bottom of reservoir will be cemented; roof over top to cover water; R. L. Jones, Water Commissioner.

Tex., El Paso.—City will agree to build brick pumphouse for International Water Co. (See "Machinery Wanted.")

Tex., El Paso.—City will vote June 21 on issuance of \$375,000 of bonds for construction of water-works; W. F. Robinson, Mayor.

Tex., Houston.—City is having plans prepared for laying of separate 12-inch mains in business district to be used exclusively for fire service; present 4 and 6-inch mains will continue to be used for domestic service; city has contracted for 200 tons of 8-inch mains to be laid in First and Second wards. F. L. Dormant, consulting engineer, will prepare plans for separate water plant in Cleveland Park; artificial lake is now located in park, which will be converted into reservoir with capacity of 60,000,000 gallons water; water for this station will be furnished by artesian wells; bottom of reservoir will be cemented; roof over top to cover water; R. L. Jones, Water Commissioner.

Tex., Timpson.—City will probably vote on issuance of \$15,000 bonds for water-works system. Address The Mayor.

Tex., Terrell.—City voted issuance of \$8000 of bonds for improvement of water-works and electric-light system. Address The Mayor. (See "Electric-light and Power Plants.")

Va., Mt. Jackson.—City awarded contract to Kneisley Bros., Woodstock, Va., for construction of gravity system water-works recently noted; 500,000 gallons capacity; cost \$12,000; will open bids June 4 for material; F. E. Brill may be addressed. (See "Machinery Wanted.")

Va., Portsmouth.—Norfolk County Water Co. will drill additional wells; Engineer Hoey, Philadelphia, Pa., will locate wells and superintend construction of larger mains.

Va., Richmond.—Superintendent of Water-works recommends improvements (to water-works) costing \$3000, including enlargement of pumping station at standpipe and installation of centrifugal pump.

W. Va., Fairmont.—City will expend \$75,000 to improve water-works system; construct new lines, move pump station and bridge; S. B. Miller, resident engineer; A. G. Martin, Mayor. (\$69,000 bond issue recently noted.)

W. Va., Wheeling.—Wheeling Traction Co., T. H. Conderman, president, will erect proposed pumping station at power plant; estimated cost \$100,000; will improve present system at plant, doubling present capacity; building to be 20x50 feet; brick; will install low-pressure turbine, 1500 K. W. H., with condenser, etc.; date of opening bids not set; A. G. Mersing, constructing engineer. (See "Machinery Wanted.")

WOODWORKING PLANTS

Ky., Louisville—Wagons.—Kentucky Wagon Manufacturing Co., W. C. Nones, president, will increase capital stock from \$1,250,000 to \$1,500,000.

N. C., High Point—Caskets.—High Point Casket Co. incorporated with \$50,000 capital stock by Eugene Andrews and others.

N. C., Oxford—Buggies.—Oxford Buggy Co. preparing to construct proposed addition to factory; building will be three stories, 60x20 feet; brick; cost about \$10,000; capacity to be 6000 buggies annually; R. M. Minor, architect; W. H. Fogelman, contractor; both of Oxford. (See "Machinery Wanted.")

Okl., Cherokee.—City has engaged Burns & McDonnell, Kansas City, Mo., as engineers in charge of completion of water-works system recently noted. (See "Electric-light and Power Plants.")

Okl., El Reno.—City defeated proposition to purchase El Reno Water Co.'s plant for \$120,000; will now proceed to issue \$250,000 bonds recently reported voted for water, sewer and other purposes. Address The Mayor.

Okl., Garvin.—City will receive bids on supplies for water-works construction; O'Neill Engineering Co., Dallas, Tex., engineer; N. Carr, Town Clerk. (See "Machinery Wanted.")

S. C., Chester.—City awarded contract at \$3300 to Roberts Filter Manufacturing Co.,

Philadelphia, Pa., to furnish and install filters in water plant.

S. C., Gaffney.—City will open bids June 15 for furnishing about nine miles of 6 to 12-inch cast-iron pipe, fittings, hydrants, valves and boxes, erecting pumping station and filtration plant complete, including electrical machinery, heating plant, hydraulic connections, etc.; J. N. Lipscomb, charman Board of Public Works; William W. Lyon, consulting engineer, 303 Duval Bldg., Jacksonville, Fla. (See "Machinery Wanted.")

S. C., Timmonsville.—City selected J. N. Johnson, Florence, S. C., to prepare plans and estimates for water-works and sewerage system; about \$45,000 to be expended. (See "Machinery Wanted.")

Tenn., McKenzie.—City voted issuance of \$20,000 of bonds for extension of water-works and street paving; will make improvements when bonds are placed; J. D. Herron, Mayor.

Tex., Del Rio.—Del Rio Water Co. contemplates construction of 1,000,000-gallon concrete reservoir or steel standpipe.

Tex., El Paso.—City has agreed to build brick pumphouse for International Water Co.

Tex., El Paso.—City will vote June 21 on issuance of \$375,000 of bonds for construction of water-works; W. F. Robinson, Mayor.

Tex., Houston.—City is having plans prepared for laying of separate 12-inch mains in business district to be used exclusively for fire service; present 4 and 6-inch mains will continue to be used for domestic service; city has contracted for 200 tons of 8-inch mains to be laid in First and Second wards. F. L. Dormant, consulting engineer, will prepare plans for separate water plant in Cleveland Park; artificial lake is now located in park, which will be converted into reservoir with capacity of 60,000,000 gallons water; water for this station will be furnished by artesian wells; bottom of reservoir will be cemented; roof over top to cover water; R. L. Jones, Water Commissioner.

Tex., Timmonsville.—City will probably vote on issuance of \$15,000 bonds for water-works system. Address The Mayor.

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W. Va., Wheeling.—Wheeling Traction Co., T. H. Conderman, president, will erect proposed pumping station at power plant; estimated cost \$100,000; will improve present system at plant, doubling present capacity; building to be 20x50 feet; brick; will install low-pressure turbine, 1500 K. W. H., with condenser, etc.; date of opening bids not set; A. G. Mersing, constructing engineer. (See "Machinery Wanted.")

N. C., Asheboro.—City will expend \$50,000 to construct water-works and sewerage plants previously reported; erect power and pump houses, reservoir and elevated tank; J. B. McCrary & Co., Atlanta, Ga., are preparing plans and will have work in charge; date of opening bids not set. Address proposals to H. M. Worth, Mayor.

N. C., Ashboro.—City will expend \$50,000 to construct water-works and sewerage plants previously reported; erect power and pump houses, reservoir and elevated tank; J. B. McCrary & Co., Atlanta, Ga., are preparing plans and will have work in charge; date of opening bids not set. Address proposals to H. M. Worth, Mayor.

Okl., Arapaho.—City contemplates installation of water-works and electric-light plant; will vote on bond issue; expenditure \$30,000 to \$40,000; O'Neill Engineering Co., Dallas, Tex., preparing plans; M. C. Main, Mayor.

Okl., Cherokee.—City has engaged Burns & McDonnell, Kansas City, Mo., as engineers in charge of completion of water-works system recently noted. (See "Electric-light and Power Plants.")

Okl., El Reno.—City defeated proposition to purchase El Reno Water Co.'s plant for \$120,000; will now proceed to issue \$250,000 bonds recently reported voted for water, sewer and other purposes. Address The Mayor.

Okl., Garvin.—City will receive bids on supplies for water-works construction; O'Neill Engineering Co., Dallas, Tex., engineer; N. Carr, Town Clerk. (See "Machinery Wanted.")

S. C., Chester.—City awarded contract at \$3300 to Roberts Filter Manufacturing Co.,

Tex., Beaumont—Carriages.—Coffall Carriage Co. incorporated with \$20,000 capital stock by J. O. Ogden, D. M. Coffall, C. R. Lord and H. J. Halliday.

Tex., Dallas—Chests.—Texas Cedar Chest Co. incorporated with \$4000 capital stock by W. A. Sims, J. A. Elkins and P. H. Cauthen.

Va., Covington—Wood Pulp.—West Virginia Products Co. incorporated with \$120,000 capital stock; F. J. Meigs, president; J. G. Luke, vice-president; A. K. Luke, treasurer; G. E. Nelson, secretary, all of New York, and W. A. Luke of Covington.

Va., Franklin—Buggies.—Virginia Buggy Co., recently noted incorporated (under Va., Courtland) with \$50,000 capital stock, is company previously noted to establish plant at Franklin; J. D. Abbott, president; L. R. Jones, vice-president; W. F. Story, secretary.

W. Va., Charles Town—Barrels.—H. C. Getzendorfer purchased at \$8000 about 2900 acres of timber land for development; will establish mill for manufacturing barrels; estimated that 500 acres are cleared.

W. Va., Clarksburg—Picture Frames.—Charleston Picture Frame Co. incorporated with \$15,000 capital stock by Alonzo Pratt and William Elwood of Clarksburg; William Mount, Grant U. Miller and Armintha Washington of Adamson, W. Va.

BURNED

Ark., Altheimer.—Stores of L. M. Quattbaum, M. C. Crittenden, J. P. Walt & Co. and Leon Elliotts and Altheimer Telephone Co.'s plant; loss \$50,000.

D. C., Washington.—District refuse crematory at Bennings Rd. and 20th St. N. W., loss \$10,000; building owned by Isaac T. Brown of New York, district refuse contractor.

Ky., Lebanon.—Tulane Cigar Co.'s factory; Lebanon Steam Laundry.

Md., Baltimore.—Charles A. Berry's residence at Belle and Grenada Aves., North Forest Park; loss \$3000 to \$4000.

Md., Baltimore.—Barn owned by A. Thiel, 2115 East Federal St.; loss \$5000.

Md., Halethorpe.—William H. Wisner's residence; loss \$7000.

Md., Wilna.—Charles S. Archer's residence. Md., Lewisburg, R. F. D. from Thurmont.—Casino at Lake View, near Lewisburg, owned by Charles L. Ramsburg; loss \$15,000 to \$20,000.

Miss., Forest.—A. C. Schrlever's sawmill; loss \$3000.

N. C., Kenly.—Dennis Simmons Lumber Co.'s plant; estimated loss, \$50,000.

N. C., Lakeview.—Currie & McQueen's planing mill and commissary; Seaboard Air Line Railway's freight depot; W. L. Seddon, chief engineer of railway, Portsmouth, Va.

N. C., Spring Hope.—S. F. Stevens' shoothouse at box factory; loss \$2000.

Okl., Idabel.—Randolph Hotel; loss \$3000.

Okl., Nowata.—Kansas Torpedo Co.'s nitro-glycerine factory; loss \$30,000.

Okl., Wister.—Buildings of T. A. Emerson, J. L. Ford, Oklahoma Drug Co., C. A. Logan, Armstrong & Adamson, E. S. Shippey, W. R. Craig, John Green, Martin Pigg, Bell Telephone Co., W. L. Hull, Matt Brown, Brown Hotel, Traw Hotel, Main Hotel, R. L. Warren, manager; loss \$100,000.

Tenn., Lawrenceburg.—Commercial Hotel; loss \$5000.

Tex., Cisco.—W. D. Chandler's building; loss \$6000; H. G. Eppier's building; loss \$8000.

Tex., Rockport.—Rockport Ice & Light Co.'s plant; loss \$35,000.

Tex., Texarkana.—R. T. Norwood's two buildings, loss \$25,000; Louis Longinotti's building, loss \$10,000.

Tex., Jardin.—Eli Yarbro's cotton gin; loss \$3000.

Tex., Port Arthur.—Gulf Pipe Line Co.'s 55,000-barrel oil tank; Gulf Refinery Co.'s 20,000-barrel tank.

Va., Lynchburg.—Lynchburg Steam Bakery; loss \$5000.

Va., Bowmans.—A. L. Lindamood's store and two warehouses; loss \$10,000 to \$12,000.

Va., Leesburg.—H. J. Fadeley's barn on White Hall Farm; loss \$5000.

DAMAGED BY STORM

Tex., Highbank.—Falls county's iron bridge over Brazos River; loss \$30,000. Address County Commissioners, Marlin, Tex.

Increasing Its Facilities.

The French Oil Mill Machinery Co., Piqua, Ohio, has added another structure to its plant. This building is 70x90 feet, and is for the purpose of housing a traveling crane with a 32-foot span. The company is operating night and day to fill its orders.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ark., Little Rock.—D. H. Cantrell will erect two-story apartment-house; four apartments.

D. C., Washington.—Howard M. Etchison, the Kalaramee will erect apartment-house on Columbia Rd.; four stories; elevator.

Fla., St. Petersburg.—Mrs. L. B. Purnell will erect office and apartment building; four stories; white brick; offices on ground floor; apartments above.

Ga., Americus.—Allen & Hawkins will erect apartment and business building; two stories; brick; heavy stone trimmings; stores on first floor, offices and apartments above.

Md., Baltimore.—Mrs. H. C. Jarvis will open bids June 1 for erection of proposed apartment-house at Forest Park; 84x40 feet; stucco; mill construction; plans by A. L. Forrest, 316 Professional Bldg., Baltimore. (See "Machinery Wanted.")

Mo., St. Louis.—Alice Realty & Building Co. will erect number of six-room flats on McPherson Ave.

Mo., Kansas City.—H. S. Owen will erect 12-apartment building; 37x66 feet; three stories; cost \$19,000.

N. C., Charlotte.—Egbert Hart will erect apartment-house; frontage 148 feet; 40 apartments of from two to eight rooms, with hot and cold water, heat, lights and bath; cost \$50,000.

Tenn., Memphis.—H. A. Carroll has plans by Eely & Weller, Memphis, for apartment-house; eight apartments of six rooms each; brick; stone trimmings; slate roof; cost \$40,000.

Tenn., Memphis.—Mrs. Paul Townsend, Jefferson Ave., will erect apartment-house; two stories; brick veneer; gravel roof; cost \$12,689.

Tex., Dallas.—W. O. Conner, Hugh Hall, W. C. Connor and others will erect apartment-house; eight stories; steel; fireproof; 32 apartments of 10 rooms each; cost \$250,000.

Tex., El Paso.—Krause & Reser, architects, El Paso, are preparing plans for three apartment-houses to cost \$15,000, \$35,000 and \$50,000.

Tenn., Quanah.—F. D. Hendrix will erect 37-room apartment-house.

ASSOCIATION AND FRATERNAL

Ga., Macon.—T. J. Carling, chairman building committee for Ancient and Accepted Order of Masons, may be addressed relative to erection of \$100,000 temple recently noted.

La., Convent.—Woodmen of the World will erect lodge building.

La., Mansfield.—Mansfield Lodge No. 250, Ancient Free and Accepted Masons, contemplates erection of two-story lodge building; 30x37 feet; ordinary construction; stoves; electric lighting; cost \$5000; construction will not begin for several months; J. T. McClanahan, secretary.

La., New Iberia.—Ancient Free and Accepted Masons have plans by F. W. Crosby, New Orleans, La., for Masonic temple; three stories.

Mo., Kansas City.—Wyandotte Aerie, Fraternal Order of Eagles, is having plans prepared by Rose & Peterson, Kansas City, Kans., for \$40,000 clubhouse.

Mo., Mexico.—Ancient Free and Accepted Masons having plans prepared by Miller, Opel & Torbet, Jefferson City, Mo., for Masonic Temple; press brick; stone; galvanized iron cornice; gas and electric lights.

Mo., St. Louis.—Scottish Rite Cathedral Association, Nicholas M. Bell, president, will erect \$400,000 cathedral; two stories in front, auditorium and dining hall in rear, with seating capacities of 4000 and 2000 people, respectively.

Tenn., El Paso.—Independent Order of Odd Fellows has plans by Krause & Reser, El Paso, for lodge building; four stories; cost \$50,000. (Recently mentioned.)

Tenn., Houston.—Magnolia Camp, Woodmen of the World, 205½ San Jacinto St., will erect lodge building; cost \$10,000.

Tenn., Quanah.—Independent Order of Odd Fellows will erect lodge and business building.

BANK AND OFFICE BUILDINGS

Ark., Osceola.—Bank of Osceola will expend \$15,000 to erect bank building recently noted;

two stories and basement; 56x30 feet; steam heat; electric lighting; plans by Thos. S. Marr, Nashville, Tenn.; bids opened June 2. (See "Machinery Wanted.")

Ga., Cordele.—Byron & Sons, Valdosta, Ga., purchased Central Hotel for \$17,500 and will remodel for office and warehouse.

Ga., Griffin.—Merchants and Planters' Bank will remodel bank building; will install marble and brass fixtures; cost about \$10,000; plans have been invited.

Ga., Statesboro.—Bank of Statesboro has plans by E. C. Hosford & Co., Eastman, Ga., for bank and office building previously mentioned; 60x68 feet; brick and stone; bids received June 14; will receive bids on banking fixtures and general construction separately; plans and specifications on file at office of architects and to be had upon deposit of \$10. (See "Machinery Wanted.")

Ky., Pewee Valley.—Pewee Valley State Bank will erect bank building. Horace Pollock, Germantown, Ky., is cashier.

La., Houma.—Bank of Terrebonne, H. M. Bourg, president, will erect bank building.

La., Thibodaux.—Citizens' Bank, H. N. Roth, president, is having plans prepared by Favrot & Livaudais, 839 Gravier St., New Orleans, La., for two-story bank and office building of ordinary construction. (Lately mentioned.)

Md., Smithsburg.—Smithsburg Banking Co. adopted plans by J. W. Waltz, Waynesboro, Pa., for bank building; three stories; pressed brick; brownstone trimmings.

Md., Baltimore.—Owners' Realty Co., Chas. W. Hurst, president, Calvert Bldg., is having plans prepared by Charles W. Price, 1912 West Franklin St., for remodeling building at Saratoga and Courtland Sts. as office building.

Miss., Batesville.—Bank of Batesville, M. E. Jarrett, cashier, has plans by J. Johnson, Sardis, Miss., for bank building recently noted; 25x75 feet; stoves and fireplaces; gasoline and electric lighting.

Miss., Meridian.—Citizens' National Bank is having plans prepared by Mobray & Uffinger of New York for bank and office building; seven stories; first story front of marble; balance of terra-cotta; cost \$75,000.

Mo., Kansas City.—Julius Stein will erect office building; six stories; cost \$42,000; plans being prepared by J. H. Martling of Kansas City.

Mo., Springfield.—St. Louis & San Francisco Railroad, M. C. Byers, chief engineer. St. Louis, Mo., has arranged to lease office building to be erected; structure will be of wood.

Okla., Hammon.—Oklahoma State Bank contemplates erection of bank building. Address W. C. Ernest, Thomas, Okla.

Okla., Norman.—First State Bank is having plans prepared by Bailey & Bailey, Majestic Bldg., Oklahoma City, Okla., for bank and office building; three stories; 25x140 feet; cost \$25,000.

Okla., Oklahoma City.—H. J. Scheirich, Louisville, Ky., will, it is reported, erect office building on Grand Ave.; 10 stories; fireproof.

S. C., Eastover.—Farmers and Merchants' Bank, Richard Singleton, president, will erect bank building; bids to be opened June 11; each bid to be accompanied by certified check for 5 per cent.; plans and specifications had on application to Wilson, Sompayrac & Urquhart, architects, Columbia, S. C.

S. C., Florence.—Commercial Savings Bank will remodel bank building; bids to be opened June 3; certified check, \$300; plans on file at bank.

Tenn., Bethpage.—Bethpage Bank will erect bank building; bids invited; for plans and specifications address A. J. Sparkman or M. B. Perdue.

Tenn., Brookeland.—Brookeland State Bank, J. D. Butler, president, Remig, Tex., will erect brick bank building.

Tenn., Childress.—J. H. Cristler will erect bank building; brick; stone trimmings; 50x90 feet; R. H. Stuckey, architect, Chillicothe, Tex., will receive bids until June 6 for erection; plans and specifications furnished by R. H. Stuckey; plans can be seen at office of Texas Building Co., Fort Worth, Tex., and of Mr. Cristler; certified check for \$200 to accompany each bid.

Tenn., Como.—Merchants and Planters' Bank contemplates erection of bank building in Garvin Addition.

Tenn., El Paso.—Z. T. White will, it is reported, erect office building; four or five stories; steel and concrete.

Tenn., El Paso.—O. H. Baum will erect office building; five stories and basement; 120x112 feet; steel and concrete.

Tenn., El Paso.—E. Kohlberg will, it is reported, erect steel and concrete office building; four or five stories.

Tenn., El Paso.—L. E. Booker will, it is reported, erect steel and concrete office building; four or five stories.

Tenn., Roanoke.—Continental State Bank will erect two-story brick building.

Va., Castlewood.—Merchants and Farmers' Bank of Castlewood, R. A. Fletcher, president, will erect 24x40-foot bank building; steam heat.

Va., Montvale.—Bank of Bedford County, Dr. S. H. Price, president, will erect bank building.

Va., Richmond.—H. M. and R. B. Allport, 1234 Mutual Bldg., are having plans prepared by Carneal & Johnson of Richmond for six-story professional building for doctors, dentists and specialists; Turkish baths and gymnasium in basement; auditorium on top floor; estimated cost, \$125,000; steel and concrete construction; 60x130 feet; hot-water heat; one passenger and one freight elevators; bids to be opened about July 15.

Va., Roanoke.—American Savings Bank will enlarge and remodel bank building.

W. Va., Charleston.—Harding & Upman, 729 15th St. N. W., Washington, D. C., have prepared plans for office building to cost \$50,000.

W. Va., Philippi.—Citizens' National Bank will open bids about June 15 for erection of bank and office building recently mentioned; four stories; semi-fireproof; steam heat; cost \$20,000; plans by Holmboe & Lafferty, Clarksburg, W. Va.

CHURCHES

Ala., Birmingham.—Rev. G. T. Harris, pastor Walker Memorial Methodist Episcopal Church, may be addressed relative to erection of edifice recently noted.

Ark., Little Rock.—Central Presbyterian Church, Rev. J. Walter Cobb, pastor, will remodel edifice; cost \$12,000.

Ark., Stuttgart.—Baptist Church has plans by J. M. Whitehead of Little Rock, Ark., for edifice to cost \$13,000.

Fla., Kissimmee.—Methodist Episcopal Church South (not Methodist Episcopal Church, as recently stated) will erect edifice; R. O. Meek, chairman building committee.

Fla., Miami.—Trinity Episcopal Church is planning to erect church, parish-house and \$5000 rectory; Rev. James Cope, rector.

Ky., Lexington.—Tabernacle Baptist congregation purchased site 85x150 feet for \$3500 on which to erect edifice. Address The Pastor, Tabernacle Baptist Church.

Md., Cambridge.—Baptist Church is considering rebuilding of burned edifice. Address Rev. Dr. E. B. Hatcher, secretary Executive Board Maryland Baptist Union Association, 224 St. Paul St., Baltimore, Md.

Md., Cambridge.—A. C. Leach, 323 North Charles St., Baltimore, has completed plans for proposed edifice to be erected for Prince of Peace Protestant Episcopal Church at Liberty Rd. and 10th St.; one story and basement; stone; 35x95 feet; cost \$30,000; bids will soon be invited. (Previously mentioned.)

Miss., Greenville.—Presbyterian Church will erect proposed Sunday-school addition; 40x80 feet; ordinary construction; brick. Address proposals to H. H. Negus.

Mo., Joplin.—Calvary Baptist Church contemplates erection of brick edifice to cost \$10,000; C. V. Buckley, trustee.

Mo., Kansas City.—Dominican Fathers, Rev. Father Fowler, pastor, are having plans prepared by Wilder & Wight, First National Bank Bldg., Kansas City, for edifice at 23d and Benton Blvd.; 90x150 feet; cost \$150,000.

N. C., Winston-Salem.—Home Moravian Church, Rev. J. Kenneth Pfohl, pastor, has plans by Willard C. Northrup, Winston-Salem, for remodeling and enlarging edifice recently noted; seating capacity, 1220; cost \$50,000; W. F. Waglen, chairman building committee.

S. C., Greenwood.—First Baptist Church will expend \$15,000 to erect edifice and \$5000 to improve present church building; ordinary construction; architect not selected. Address proposals to J. K. Durst.

Okla., Blackwell.—A. L. Strong, secretary M. E. Church building committee, will receive bids until June 15 for erection of church; 70x100 feet; plans and specifications on file at office of A. L. Strong. (Lately mentioned.)

Tenn., McKenzie.—Methodist Church will erect \$10,000 edifice. Address The Pastor, Methodist Church.

Tenn., McKenzie.—Presbyterian Church U. S. A., adopted plans for \$8000 edifice. Address The Pastor, Presbyterian Church, U. S. A.

Tenn., Memphis.—Olive Street Methodist Church, Rev. C. L. Smith, pastor, will expend \$3000 to \$10,000 for edifice recently noted; probably ordinary construction; will not erect until fall.

Tex., Abilene.—First M. E. Church South will remodel edifice; H. O. Wooten, chairman building committee, will receive bids until June 11; plans and specifications may be obtained from Mr. Wooten or Flanders & Flanders, architects, Dallas, Tex.; certified check, \$500.

Tex., Bowie.—Methodist Episcopal Church South will erect edifice; J. H. Matthews, W. T. Penn and others, building committee.

Tex., Roanoke.—Baptist congregation will erect \$5000 edifice. Address The Pastor, Baptist Church.

CITY AND COUNTY

Ky., Louisville—City Stables.—City will erect stables on Jefferson St. between 8th and 9th Sts; two stories; first story practically fireproof; 90 stalls and 6 box stalls; concrete floors and divisions; cost \$24,747. Address The Mayor.

La., New Orleans—Stable and Toolhouse.—Board of Commissioners, 601-602 Iberville Bank & Trust Co. Bldg., will receive bids until June 14 for erection of stable and toolhouse on river front, head of Poydras St.; deposit of \$250 (check or cash); plans; specifications, etc., on file at office of Martin Shepard, architect, 503 Perrin Bldg., New Orleans, or may be had on deposit of \$25; Hugh McCloskey, president. (Previously mentioned.)

Okla., Oklahoma City—Hospital.—Bob Parman, City Clerk, will expend \$50,000 to erect addition to hospital recently noted; plans by D. A. Bennett, Oklahoma City; bids opened June 6.

Tenn., Memphis—Fire and Police Station.—City has plans by John Galsford, Memphis, for double engine-house at Lucy St. and Latham Ave., single engine-house at Lamar Blvd. and Woolridge Ave.; brick; lower floor finished inside in glazed brick, no plastering being used except upstairs; also for police station on Barksdale Ave. near Woodlawn. (Recently mentioned.)

Tenn., Nashville—Market-house.—City contemplates erection of market-house; three stories; lower floor market, second story as addition to city workhouse; reinforced concrete or brick. Address The Mayor.

Tenn., Nashville—Hospital.—Davidson county and Nashville contemplate erection of joint hospital for treating tuberculosis; B. G. Tucker, president Davidson County Board of Health.

Tex., Anson—City Hall and Fire Station.—City voted \$10,000 bond issue for erection of city hall and fire station. Address The Mayor.

Tex., Amarillo—City Hall and Jail.—City contemplates erection of \$15,000 city hall and jail building. Address The Mayor.

Va., Martinsville—Jail.—J. H. Matthews, clerk of Henry County Supervisors, will open bids June 13 for erection of brick and reinforced concrete jail; certified check for \$500, payable to clerk as above; plans and specifications on file at office of Huggins & Bates, architects and engineers, Roanoke, Va., or limited number may be obtained from J. H. Matthews, Martinsville, on deposit of \$50, to be refunded on return in good shape; bids received at same time for purchase of old jail building and contents and removal from present site. (Recently mentioned.)

Va., Richmond—Exposition.—Building Inspector, Room 316 City Hall, will receive bids until June 6 for construction of exhibition building for Richmond on State Fair Grounds; certified check for \$500, drawn to order of Treasurer City of Richmond; plans and specifications on file at office of Building Inspector or Scarborough & Howell, Inc., architects, 723 East Main St., Richmond. (Recently mentioned.)

COURTHOUSES

Tenn., Chattanooga.—Hamilton County Commissioners postponed indefinitely date to receive plans for rebuilding burned courthouse; fireproof; three stories and basement; steel frame; cost not to exceed \$500,000; Seth M. Walker, County Judge. (Recently mentioned.)

DWELLINGS

Ala., Birmingham.—M. J. Gregg will erect residence; two stories; brick veneer; cost \$14,000.

Ala., Birmingham.—L. H. White will erect residence; two stories; frame; cost \$5000.

Ala., Birmingham.—C. W. Mills will erect one-story frame dwelling; cost \$5000.

Ala., Birmingham.—J. N. White will erect

two dwellings; two stories; frame; cost \$4000.

Ala., Corey.—Corey Land Co., Robert Jemison, Jr., president, 2024 3d St., Birmingham, Ala., will soon award contracts for erection of 50 dwellings; cost \$1500 to \$6500, or total of over \$100,000.

Ark., Fort Smith.—South Fort Smith Building Co. incorporated with \$50,000 capital stock to erect dwellings for employees of plants.

Fla., Jacksonville.—Florida Realty Investment Co. will erect three dwellings; two stories; frame; cost \$10,000.

Fla., Miami.—Trinity Episcopal Church, Rev. James Cope, rector, will erect rectory; reinforced concrete; cost \$5000. (See "Churches.")

Ga., Savannah.—George A. Mercer will erect residence.

Ga., Savannah.—W. G. Barnwell will erect residence in Vernon View.

Ky., Middlesboro.—P. T. Colgan will expend \$3000 to erect dwelling recently noted; two stories; eight rooms; ordinary construction; hot-water heat; electric lighting; architect not selected.

La., Morgan City.—R. J. Terrebonne will erect residence.

La., New Orleans.—W. G. Kost is having plans prepared by J. Chas. Valadie, 924 Bourbon St., New Orleans, for proposed dwelling; 26x108 feet; ordinary construction; frame; gas and electric lighting; cost \$2000.

La., New Orleans.—Joseph E. Friend will erect dwelling; two stories; brick; cost \$20,000.

La., New Orleans.—W. E. Wells will erect dwelling; frame; cost \$3000.

La., New Orleans.—Mrs. A. T. Thomas will erect cottage; double; frame; cost \$3000.

Md., Baltimore.—James V. Kelley, 4508 Pimlico Blvd., will erect residence on Fall Mall, Edgecomb Park; 35x46 feet; cost \$8000 to \$7000.

Md., Baltimore.—W. P. Parker is having plans prepared by James E. Maher, 305 Maryland Savings Bank Bldg., for residence at Lenox; two and a half stories; frame; cost \$6000.

Md., Baltimore.—Jefferson D. Norris, 625 Gaither Estate Bldg., will erect \$9000 cottage on Edgecomb Circle.

Md., Baltimore.—Jefferson D. Norris, 625 Gaither Estate Bldg., will erect \$9000 dwelling.

Md., Baltimore.—Fairmount Railway Corporation, 404 Fidelity Bldg., has plans by Elliott & Emmart, Union Trust Bldg., Baltimore, for frame cottage on Clifton Ave., Walbrook; contractors estimating include John Cowan, 106 West Madison St.; Gladfelter & Chambers, 2072 Woodberry Ave.; Edward Pilert, 222 Perry St., and W. E. Harn, 2700 Huntingdon Ave., all of Baltimore.

Md., Baltimore.—J. Charles Linthicum & Bro., 220 St. Paul St., and Joseph L. White, 28 South Broadway, will erect 11 dwellings on Faile Ave., between Glover St. and Lakewood Ave.; nine 12x42 feet, one 14x48 feet and one 14x46 feet; two stories; brick; cost \$11,000.

Md., Baltimore.—Downing & Murphy will expend \$12,000 to erect dwellings recently noted; six rooms each; 15x50 feet each; ordinary construction; steam heat; electric lighting; plans by J. S. Downing, 802 41st St., Baltimore; construction by owner.

Md., Baltimore.—Fred Lassahn, Fullerton, Baltimore county, Maryland (not F. E. Lassahn, 2414 East Fayette St., as was recently noted), will erect dwelling at Fullerton Heights; two and a half stories; frame; cost \$4000.

Md., Chevy Chase.—Thomas J. Fisher & Co., 738 15th St. N. W., Washington, D. C., has plans by Hunter & Bell, 518 10th St. N. W., Washington, for two dwellings on Livingston St.; three stories; sites 62½x130 feet each.

Md., Chataclon, P. O. Garrison.—John McHenry, treasurer of Mercantile Trust & Deposit Co., Calvert and German Sts., Baltimore, Md., has plans by Joseph Evans Sperry, Calvert Bldg., Baltimore, for residence at Chataclon; two and a half stories; frame; 65x22 feet; contractors estimating include John Cowan, 106 West Madison St.; Gladfelter & Chambers, 2072 Woodberry Ave.; W. E. Burnham, Builders' Exchange; W. E. Harn, 2700 Huntington Ave.; C. C. Watts, 113 West Hamilton Ave., all of Baltimore, and I. Owings, Highland Ave., Mt. Washington, Md.

Md., Roland Park.—A. H. Weston, 113 Hawthorn Rd., has plans by Edward L. Palmer, 112 Elmhurst Rd., Roland Park, for residence; two and a half stories; frame; cost \$5000.

Md., Birmingham.—C. W. Mills will erect one-story frame dwelling; cost \$5000.

Mo., Kansas City.—Walter Jaccard of Jaccard Jewelry Co. will erect residence.

Mo., St. Louis.—Grand View Investment Co. will erect nine-room dwelling.

Mo., St. Louis.—A. A. Schaff will erect five dwellings; two stories; cost \$15,000.

Md., Govans.—William G. Pugh, 2018 Park Ave., Baltimore, Md., will erect cottage on Beaumont Park Ave.

N. C., Wilmington.—George W. Kidder will erect residence; two stories; cost \$3500.

N. C., Wilmington.—Geo. B. Elliott has plans by Noland & Baskerville, Richmond, Va., for dwelling recently noted; three stories; 52x55 feet; frame; brick veneer; steam heat; electric lighting; cost \$8000; day's labor.

Okla., Enid.—J. F. Bennett will erect residence and barn.

Tenn., Knoxville.—Charles H. Smith will erect residence; brick veneer; cost \$4000.

Tenn., Memphis.—Charles Gerber, 1236 Poplar Ave., will erect dwelling; two stories; brick veneer; slate roof; concrete foundation; cost \$5000.

Tenn., Memphis.—Mrs. Birdie Clemons, 201 McNeil St., will erect dwelling; two stories; seven rooms; frame; concrete foundation; metal roof; cost \$5300.

Tenn., Memphis.—R. E. Lee, 1468 Union Ave., will erect residence; two stories; nine rooms; brick veneer; tile roof; concrete foundation; cost \$12,000.

Tenn., Memphis.—J. L. Lancaster, 1730 Cowden Pl., will erect dwelling; two stories; eight rooms; brick veneer; cost \$7400.

Tenn., Nashville.—H. G. Hill will erect bungalow.

Tenn., Nashville.—Mrs. H. M. Mills has plans by Miss Elizabeth Pritz of Asmus & Norton, Nashville, for two-story residence.

Tenn., Nashville.—C. W. Merhon will erect \$3000 residence.

Tenn., Pulaski.—W. B. Smithson will expend \$8000 to erect 10-room dwelling recently noted; brick; slate roof; pressed brick; colonial porch; hot-water heat; lighting not decided; day's labor. (See "Machinery Wanted.")

Tex., Houston.—R. C. Duff will erect \$25,000 residence.

Tex., Houston.—John Logue has plans by Tobar & Jones, Houston, for residence; colonial style; frame; cost \$7000.

Tex., San Antonio.—W. S. Delery will not at present erect dwelling recently reported.

Tex., Waco.—W. W. Cameron will open bids in 60 to 90 days for erection of dwelling recently noted; 75x50 feet; mill construction; hot-water heat; gas and electric lighting; cost \$30,000; plans by Ray E. Lane, Waco. (See "Machinery Wanted.")

Va., Portsmouth.—L. A. Plummer will erect block of granite tenements; cost \$8000.

Va., Richmond.—W. F. Drinkard, Jr., will erect tenement; two stories; brick; cost \$3000.

Va., Richmond.—William Von Breling will erect store and dwelling; brick; cost \$4800.

GOVERNMENT AND STATE

Ga., Fort Screen—Pumphouse.—Sealed proposals in triplicate will be received until June 15 for construction, plumbing and electric wiring for addition to pumphouse for ice plant; information furnished upon application. Address Constructing Quartermaster.

Va., Fort Monroe—Officers' Quarters.—James H. Brinson, Hampton, Va., is lowest bidder at \$46,540 for erection of nine sets of non-commissioned officers' quarters.

HOTELS

Ark., Reyno.—Elmer Reynolds of Biggers, Ark., will erect hotel; concrete construction.

Fla., Jacksonville.—William Burbridge and associates will erect hotel; six stories; 120 rooms; exterior tapestry brick; stone and terra-cotta trimmings; interior reinforced concrete; fireproof; tile floors in halls and corridors; marble stairways.

Fla., Jacksonville.—J. W. Pope of Pope-Perry Lumber Co. purchased Grand View Hotel property for about \$100,000 and is reported to either make improvements to present structure or more probably erect new building.

Ga., Atlanta.—W. L. Stoddart, 30 West 38th St., New York, recently noted as preparing plans for hotel for Joseph F. Gatins, New York, states general contractors are invited to submit general contract estimates, including construction of building, plumbing, heating, ventilating, electric-light wiring, power plant, elevator work, etc.; plans may be seen at office of architect on or after June 1; general contract bids will be received June 20; building to be of fireproof construction; steel frame with terra-cotta; reinforced concrete floors, arches and partitions; tile roof;

granite or marble base; limestone and terra-cotta trimmings; faced-brick exterior; vacuum cleaning plant; high-power boilers; estimated cost, \$400,000.

Ky., Lexington.—Phoenix Hotel Co. awarded contract to Seldon-Breck Construction Co., Fullerton Bldg., St. Louis, Mo., for erection of Phoenix Hotel previously described; eight stories; mezzanine floor and basement; reinforced concrete; brick and terra-cotta; three or four elevators; sidewalk lights; cost within \$400,000; plans by Richards, McCarty & Bulford, 61 The Ruggery, Columbus, Ky.

Mo., Kansas City.—H. E. Weislog will erect hotel; three stories; 38x110 feet; cost \$14,000.

Okla., Idabel.—Randolph Hotel will erect brick hotel to replace structure reported burned; loss \$3000.

Okla., Osage.—Osage Land & Development Co., State National Bank Bldg., Oklahoma City, Okla., plans construction of hotel. (See "Land Developments.")

Tex., Brownsville.—F. J. Combe and associates will, it is reported, build hotel costing \$300,000.

Tex., Dallas.—A. W. Campbell will erect hotel; four or five stories; reinforced concrete and steel; 75x90 feet; fireproof; 120 rooms; cost \$100,000; plans by Lang & Wittell, Dallas.

Tex., Dallas.—Adolphus Busch, St. Louis, Mo., will, it is reported, erect hotel; 20 stories; cost \$1,000,000.

Tex., Temple—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., will erect three-story (Harvey) hotel and luncheon recently noted; brick and concrete structure; vacuum heat; electric lighting; cost about \$150,000; plans by Jarvis Hunt, 1407 Monadnock Bldg., Chicago, Ill.; date of opening bids not set.

MISCELLANEOUS STRUCTURES

Ala., Birmingham—Clubhouse.—Edgewood Land & Improvement Co., G. T. Brazelton, secretary-treasurer, contemplates erection of clubhouse, grandstand, garage, etc. (See "Road and Street Work.")

Ala., Mobile—Clubhouse.—Alba Hunting and Fishing Club, Pheland Dorland, president, will erect clubhouse to cost from \$5000 to \$7000 and stables; also enlarge wharf with dancing pavilion at end of pier.

Fla., Miami—Parish-house.—Trinity Episcopal Church, Rev. James Cope, rector, is planning to erect parish-house, church and rectory.

Ky., Louisville—Clubhouse.—Tavern Club, J. Temple Robinson, secretary, has plans for remodeling and enlarging clubhouse; will erect three-story addition; estimated cost \$30,000.

Mo., St. Louis—Building.—Murch Bros. Construction Co., Odd Fellows Bldg., St. Louis, secured contract for alterations to building at 910 Washington Ave. owned by Tutt estate; alterations to cost \$20,000.

Tenn., Knoxville—Barns, etc.—Appalachian Exposition Co. purchased site 300 feet square for \$3000 on which to erect barns, sheds, etc., for use of live-stock committee.

Tex., Quanah—Business.—I. O. Hart will erect brick building.

Tex., Palestine.—Geo. W. Burkitt contemplates erection of building on site occupied by St. Florence Hotel, recently reported burned.

Tex., Waxahachie—Orphanage.—Baptist Orphanage purchased site on which to erect orphanage; brick; cost about \$10,000.

Va., Portsmouth—Hospital.—King's Daughters' Hospital, John L. Watson, president, will have plans prepared for brick hospital building, with two wings also of brick; steam heating plant and laundry in basement; cost of site, erection and equipment of building \$10,000 to \$12,000. (Previously mentioned.)

W. Va., Elkins—Home.—State Board of West Virginia Humane Society is conferring with architects relative to plans and specifications for proposed \$15,000 children's home.

W. Va., Piedmont—Clubhouse.—Haskell & Barnes, 407 Wilson Bldg., Baltimore, have completed plans for clubhouse; contract will soon be awarded.

RAILWAY STATIONS

Ga., Cedartown.—Central of Georgia Railroad, C. K. Lawrence, chief engineer, Savannah, Ga., will, it is reported, erect passenger and freight station; two stories; brick and stone; cost about \$20,000.

Ky., Richmond.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky., will, it is reported, erect passenger depot to cost \$12,000.

Mo., St. Louis.—St. Louis Southwestern Railway purchased site for construction of proposed freight depot and yards; site 27x1000 feet; improvements contemplated to cost \$1,000,000; F. H. Britton is general manager; M. L. Lynch of Tyler, Tex., is chief engineer.

Mo., St. Louis.—Terminal Railroad Association, H. J. Pfeifer, chief engineer, Union Station, will have plans prepared for depot at Levee and Washington Ave. and passenger station between Market St. and Bremen Ave.; former to be of pressed brick, stone and reinforced concrete, three or four stories, and cost \$150,000; latter to be of brick and stone, two stories, and cost \$100,000.

Tenn., Memphis.—Memphis Union Station Co., J. L. Lancaster, president, invites bids until June 9 for construction of station building; three stories; 284x88 feet; covered concourse 280x75 feet; express building, one story, 40x200 feet; exterior of cut stone; interior of fireproof construction; plans prepared in office of W. H. Courtney, chief engineer Louisville & Nashville Railroad, Louisville, Ky.

Tex., Wichita Falls.—Fort Worth & Denver City Railway, R. C. Gowdy, chief engineer, Fort Worth, Tex.; Wichita Falls Route, R. A. Thompson, chief engineer; Wichita Valley Railway, R. C. Gowdy, chief engineer, Fort Worth, Tex., and Missouri, Kansas & Texas Railway, S. B. Fisher, chief engineer, St. Louis, Mo., completed plans for union station; two stories; 230x60 feet, exclusive of sheds and platforms; brick; 90-foot tower at 8th-St. entrance; waiting-room, 96x45 feet, finished in marble; second floor for offices and basement for storage; estimated cost \$100,000. (Previously mentioned.)

W. Va., Weston.—Baltimore & Ohio Railroad, A. W. Thompson, chief engineer, Baltimore, Md., will erect brick freighthouse.

SCHOOLS

Ala., Anniston.—Board of Education, A. L. Tyler, president, will receive plans until June 15 for 10-room school.

Ala., Anniston.—City voted \$25,000 bond issue for school improvements. Address The Mayor. (Recently mentioned.)

Ala., Normal.—Agricultural and Mechanical College for Negroes will erect \$12,000 domestic-science building and \$5000 hospital building.

Ark., Gillham.—City voted bonds to erect two-story brick school; W. S. Johnson and Paul Knod, directors.

Ark., Little Rock.—City will probably award contract at \$13,243 to J. D. Brock of Hot Springs, Ark., for erection of addition to James Mitchell School; two stories; brick.

Ark., Huntington.—City voted \$15,000 school bond issue; J. S. Finney, L. E. Lake and G. A. Freeze, directors.

Ark., Helena.—City voted \$25,000 bond issue to erect high-school building. Address The Mayor. (Recently mentioned.)

Ark., Sheridan.—City will erect brick school. Address The Mayor.

Ark., Mena.—W. D. Sharp, Bland, Va., leased Mena Hendrix Academy and will expend \$5000 for improvements.

Ark., Murfreesboro.—City will expend \$20,000 to erect high-school building; J. C. Hughes and J. C. Pinnix, directors.

Ark., Russellville.—Second District Agricultural School Board will receive bids until June 6 to erect four brick dormitories; certified check for \$100; plans and specifications on file at office of Frank M. Blasdale, architect, Fort Smith, Ark., or of the board at Russellville.

Ark., Rison.—City voted tax to erect \$10,000 brick school; two stories; seven or eight rooms; architect not selected; will probably open bids July 15. Address proposals to J. M. Elrod.

D. C., Washington.—City is planning to erect nine schools, including \$250,000 Normal School at Columbia Heights, 40 rooms; to accommodate 500 pupils; addition to McKinley Manual Training School; 12-room school at 8th and R. Sts. N. W., cost \$100,000; manual training school at 35th and S. Sts. N. W.; 8-room school at 13th St. and Spring Rd. N. W., cost \$65,000; 6-room school at Ivy City, cost \$65,000; 8-room school at Randel Highlands.

Fla., Miami.—Board of Public Instruction, R. E. Hall, secretary, will open bids August 1 (instead of August 15) for erection of school building recently noted; three stories; 230x250 feet; semi-fireproof construction; cost \$60,000; plans by W. C. DeGarmo, Miami; contract to include all supplies.

Fla., West Palm Beach.—Palm Beach County Special Tax School District No. 5 contemplates issuing \$6000 of bonds to erect school; J. Daugherty, Charles W. Pierce and Cullen Pence, trustees.

Ky., Glendale.—City will erect two-story school building recently noted; day's work; heating contract let; plans prepared by local architect.

Ky., Louisville.—City will soon begin erection of proposed Bland-St. school for colored children; 160x105 feet; two stories and basement; concrete, brick and wood; cost \$65,000. Address The Mayor.

Ky., Louisville.—Samuel D. Jones, business director of School Board, will receive bids until June 15 for erection of school at Morgan and Bland Sts.; certified check; plans and specifications on file at office of Mr. Jones and of Thomas & Bohne, architects, Keller Bldg., Louisville.

La., Covington.—St. Tammany parish will erect school building on Bayou LaCombe. Address Police Jury.

La., Forrest Hill.—Rapides parish voted tax for school improvements. Address Police Jury, Alexandria, La.

La., Lake Charles.—City contemplates issuing \$100,000 of bonds for school improvements. Address The Mayor.

Md., Rockville.—Montgomery County Commissioners will erect schools at Germantown, Damascus and Burtonsville, Md., and enlarge school at Clagettsville.

Miss., Jackson.—Mississippi Institution for Deaf, J. R. Dobyns, superintendent, will receive bids until June 13 for erection of dormitory, completion of main building, furnishing and installing electric motors and furnishing fire hose; plans by R. H. Hunt, Chattanooga, Tenn. (See "Machinery Wanted.")

Miss., Moss Point.—City has plans by William Drago, New Orleans, La., for two schools; two stories and one story; frame.

Mo., Columbia.—Stephens College plans erection of dormitory for 35 students.

Mo., Wellington.—Board of Education will receive bids until June 10 for erection of six-room high-school building; plans and specifications on file at office of J. L. Corse, secretary, or may be had on deposit of \$5.

Mo., Cleveland.—Bolivar County Commissioners will erect agricultural high school on site donated by Cleveland Land & Improvement Co. (See "Land Developments.")

Mo., Hannibal.—Westminster College, Fulton, Mo., is reported as considering rebuilding burned college at Hannibal.

Mo., Ozark.—City contemplates issuing \$6000 school-building bonds. Address The Mayor.

N. C., Wilmington.—City and County Board of Education contemplate erection of two additional schools and \$20,000 addition to high-school building.

Okla., Medford.—City contemplates voting on \$45,000 bond issue to erect school according to plans by A. A. Travers, Enid, Okla.; 12 classrooms, laboratory and reading-room; hot-water heat; fireproof; brick.

S. C., Fort Mill.—School Trustees plan erection of \$10,000 school.

S. C., Marion.—Henry Mullins, Esq., chairman Board of Trustees, may be addressed relative to recently noted \$20,000 bond issue voted for high school and \$30,000 for graded schools.

Tenn., Knoxville.—University of Tennessee is arranging to erect proposed Carnegie library; red brick, with white stone trimmings; facades and columns extending entire length of structure; will probably install printing outfit.

Tenn., Maryville.—City will expend \$25,000 to erect two 6 or 10-room school buildings; ordinary construction; steam or hot-air heat; will open bids June 15; Gredig & Lynn, Knoxville, Tenn., recently noted as preparing plans.

Tenn., Nashville.—City has plans by Robert Sharp, Nashville, and Wm. B. Ittner, St. Louis, Mo., for high-school building; 304x213 feet; 48 classrooms; four stairways; classrooms arranged for unilateral lighting; main corridors 18 feet, north and south corridors 12 feet and secondary corridor 10 feet wide; steam heating and ventilating system, air being washed before passing to fans; entire structure to contain 274,000 cubic feet floor space; cost \$300,000. (Previously mentioned.)

Tenn., Pinson.—County Board of Education, R. L. Bynum, superintendent, Jackson, Tenn., will erect four or five-room high-school building recently noted; ordinary construction; hot-air furnace; cost \$5000; plans by R. A. Heaveren, Jackson, Tenn.

Tenn., Beckville.—Beckville Independent School District will open bids June 1 for erection of school building recently noted; ordinary construction; cost \$8000. Address proposals to P. R. Nisbett.

Tex., Beaumont.—City will probably order bond election to erect school. Address The Mayor.

Tex., Dublin.—City voted \$30,000 bond issue to erect high-school building. Address The Mayor.

Tex., Falfurrias.—Board of Education, J. H. Morgan, superintendent, will consider plans and specifications on June 2 for 10-room school building previously mentioned; cost \$25,000.

Tex., Groesbeck.—School Board will receive bids until June 7 for erection of two-story-and-basement brick and reinforced concrete school; fireproof; also separate bids on installation of Dunham steam-heating system; certified check for \$500; plans and specifications on file at office of Secretary of School Board, Groesbeck, and at office of Taylor & Wolfe, architects, Continental Bank Bldg., Fort Worth, Tex., or may be had on deposit of \$10. (Recently mentioned.)

Tex., Grapeland.—City contemplates issuing \$10,000 of bonds to erect brick school. Address The Mayor.

Tex., Houston.—Edgar Odell Lovett, 1110-12 Scanlan Bldg., president of William M. Rice Institute, will receive bids until June 25 for erection of three-story 40-room fireproof administration building; certified check for \$10,000, payable to William M. Rice Institute; plans, details and specifications on file at office of president. (Previously mentioned.)

Tex., Hondo.—H. E. Haase, president of School Board, will receive bids until June 4 for erection of two-story brick addition to school; certified check for \$250; revised plans and specifications on file at office of F. B. Gaenslen, architect, 136 West Commerce St., San Antonio, Tex., or of Mr. Haase as above. (Previously mentioned.)

Tex., Italy.—Italy Independent School District voted \$8000 bond issue to erect addition to school. Address District School Trustees.

Tex., Itasca.—Itasca Independent School District, W. H. Coffman, president, will issue \$35,000 school bonds.

Tex., McLean.—C. E. Donnell, secretary Board of Trustees, will receive bids until June 3 (change of date) for erection of three-story brick school; certified check for \$500; plans and specifications on file at office of D. P. Kaufman & Son, architects, Amarillo, Tex., and of Secretary McLean.

Tex., Liberty.—City has plans by F. S. Glover, Houston, Tex., for school building; four classrooms and auditorium, 43x88 feet, to seat 600 pupils; brick; metal roof; cost \$900.

Tex., Midfield.—City voted bonds to erect school. Address The Mayor.

Tex., Pecos.—City has plans by W. G. Kelly, Pecos, for proposed high-school building, for which \$20,000 of bonds were voted. Address The Mayor.

Tex., Silverton.—City will vote on \$25,000 bond issue to erect school. Address The Mayor.

Tex., Terrell.—Wesley College will probably erect \$20,000 dormitory.

Tex., Waco.—City will erect 70x150-foot high school building recently noted; three stories and basement; 24 to 30 rooms; fireproof construction; heating and lighting not decided; cost \$100,000; architect not selected. J. C. Latimore may be addressed.

Tex., Texarkana.—R. T. Norwood will rebuild two stores reported burned; loss \$25,000.

Tex., Texarkana.—Louis Longinotti will rebuild store reported burned; loss \$10,000.

Va., Roanoke.—Century Investment Co. purchased building and will expend \$10,000 to convert into two stores, 25x200 feet each.

W. Va., New Martinsville.—S. B. Hall will erect business building; two stories; brick; cost \$10,000.

Fla., Quincy.—Frank P. May has plans by A. S. White, Quincy, for store building recently noted; 50x80 feet; two stories; brick; tile roof; electric lighting; cost \$5000.

Fla., Pensacola.—E. Greenblatt will erect business building; two stories; brick; fireproof; cost \$5800.

La., Shreveport.—J. S. Rendall will erect business building; brick; three stories; frontage 80 feet; reported to have awarded contract.

Miss., Columbia.—Walker Bros. will erect two-story store building; brick construction.

Miss., Columbia.—S. T. Howze will erect store building.

Md., Baltimore.—Eltemiller Bros., 1100 Hollins St., have plans by Charles Anderson, 324 North Charles St., Baltimore, for store building recently noted; 41x65 feet; ordinary construction; electric elevator.

Mo., Kansas City.—J. M. Thompson will erect business building.

Mo., St. Louis.—Blackwell Wielandy Corporation will erect store building.

N. C., Durham.—Salmon & Salmon will erect store building; pressed brick; two stories; 27x132 feet; cost \$10,000.

N. C., Selma.—W. H. Etheredge will erect brick store.

Okla., Enid.—Johnson Bros. of Douglas, Okla., will erect store building; two stories; fireproof.

Tenn., Morristown.—H. H. Rice will expend \$5000 to erect store building recently noted; 50x50 feet; ordinary construction; plans and construction by owner.

Tenn., Nashville.—Adamant Stone & Roofing Co. will erect business building; brick; cost \$5000.

Tex., Abilene.—Compere Bros. and Henry James are having plans prepared for two two-story brick and three one-story store buildings.

Tex., Amarillo.—George A. Griffiths will erect store building; one story; brick; foundation for four stories; 100 feet long.

Tex., Dallas.—I. L. Landauer and L. Schwartz will erect eight-story building.

Tex., El Paso.—George Look will expend \$26,000 for remodeling Vogue Bldg.; erect additional story; first floor to contain two stories 29x64 feet, three 16x51 feet and one 20x65 feet.

Tex., Fort Stockton.—Rooney Mercantile Co. will erect building; two stories; rock; cost \$15,000.

Tex., Quanah.—J. H. Guthrie will erect store building.

Tex., Roanoke.—M. Horton & Son will rebuild store recently reported burned; 25x80 feet; cost \$1500.

Tex., Paducah.—Bids will be received at C. A. Craven's drug store until June 4 for erection of two-story brick store and office building and two one-story brick store buildings; certified check for \$200 for each one-story building and certified check for \$300 for two-story building; plans at Craven's drug store, Paducah, and office of Taylor & Wolfe, architects, Fort Worth, Tex.

Tex., Texarkana.—R. T. Norwood will rebuild two stores reported burned; loss \$25,000.

Va., Lynchburg.—City will soon award contract for erection of proposed school according to plans by Lewis & Burnham, Lynchburg National Bank Bldg.

W. Va., Parkersburg.—Geo. D. Heaton, secretary of School Board, will receive bids until June 3 for erection of two-room-and-basement brick school on Staunton Ave.; plans and specifications on file at office of Patton & Daley, associated architects, 719 Union Trust Bldg., Parkersburg.

STORES

Ark., Altheimer.—Leon Ellbotts will rebuild store building reported burned.

Ark., Altheimer.—L. M. Quattlebaum will rebuild store building reported burned.

Ark., Altheimer.—M. C. Crittenden will rebuild store reported burned.

Ark., Altheimer.—J. P. Walt & Co. will rebuild store reported burned.

Ark., Little Rock.—D. H. Cantrell will erect store building.

Ark., Little Rock.—Norwood & Skinner will erect two-story frame building; cost \$3500.

Ark., Texarkana.—Joseph Lipari will erect store building to be leased by S. H. Kress & Co., 336 Broadway, New York; two stories and basement; steam heat; cost \$25,000.

Fla., Jacksonville.—John A. Cunningham will erect store building; one-story frame and brick show room; 22x86.2 feet.

Fla., Jacksonville.—J. H. Boden will erect store and office building; two stories; brick and stone.

THEATERS

Ala., Montgomery.—Klaw & Erlanger, New York, leased Montgomery Theater; will redecorate and make number of improvements.

Miss., Meridian.—D. J. Hennessy of Gem Theater closed lease for theater to be erected by J. W. Barber and S. S. Coleman under supervision of B. Frank Isaacs; concrete; 75x66 feet; one story; steel; fireproof; steam heat; seating capacity 1028 people; cost \$40,000.

Okla., Tulsa.—R. C. Brady will convert building into theater; will erect additional story, install marble entrance, private electric plant, etc.

Va., Richmond.—M. Hofheimer will erect theater; capacity 1400 people; cost \$100,000.

Va., Newport News.—Finch estate, E. I. Mason and Judge Dudley, trustees, will erect theater; 50x100 feet; ground-floor type; brick; two stories in front, three stories in rear; cost \$10,000.

WAREHOUSES

Fla., Jacksonville.—Rosser & Fitch have plans for warehouse; one story; brick; 50x124 feet; cost \$6000.

Ga., Cordele.—Byron & Sons, Valdosta, Ga., purchased Central Hotel for \$17,500 and will remodel for warehouse and office.

Ky., Danville.—Boyle County Tobacco Warehouse Co. incorporated with \$5000 capital stock by H. C. Bright of Danville; Allen Hiatt of Shelbyville, Ky., and others.

Ky., Danville.—Danville Loose Leaf Tobacco Warehouse incorporated with \$15,000 capital stock by R. G. Price of Danville, William Riley of Lexington, Ky., and J. S. Price of Nicholasville, Ky.; will erect warehouse 75x200 feet.

Md., Baltimore.—R. W. Norris & Son ready to receive bids for erection of warehouse recently noted; ordinary construction; plans by Robert C. Ulrich, 72 Gunther Bldg., Baltimore.

Md., Colgate.—Frensdorf & Brown, Colgate, Md., have commenced construction of addition to warehouse for Colgate Distillery; two stories; brick; 36x90 feet.

Mo., Kansas City.—Patterson-Sargent Paint Co., Cleveland, O., purchased site for \$15,000 on which to erect five-story warehouse.

N. C., Wilmington.—Wilmington Compress & Warehouse Co. will double warehouse facilities; reported cost, \$25,000.

S. C., Barnwell.—Farmers' Union Incorporated with \$10,000 capital stock by H. D. Calhoun, P. M. Buckingham, J. A. Jenkins and others.

Tenn., Nashville.—Davidson, Hicks & Green Company will erect warehouse at 6th and Crutcher Sts.; cost \$8000.

Tex., San Angelo.—Harkrider-Morrison Company, Fort Worth, Tex., will erect warehouse to cost from \$12,000 to \$15,000.

Tex., San Angelo.—Gulf Refining Co., Houston, Tex., has arranged, it is reported, for branch distributing warehouse and office building.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ark., Little Rock.—C. M. Butler awarded contract to Schmelzer & Schay, Little Rock, for erection of apartment-house; cost \$5000.

Fla., Jacksonville.—A. G. Bigelow awarded contract to O. P. Woodcock, Jacksonville, to erect bachelor apartments; four stories; light buff pressed brick; fire escapes; the floor in lobby; gravel roof; cost \$35,000.

Ga., Savannah.—M. S. Long awarded contract to A. A. Artley, Savannah, for converting four-story brick residence into apartment-house; plastered and stuccoed on outside; will install back and interior stairs, dumb-elevator system, etc.; cost \$10,000.

Okl., Oklahoma City.—Williamson-Halsell-Frazier Company awarded contract to W. J. Spradlin, Oklahoma City, for erection of garage and apartment building; three stories; 50x10 feet.

Va., Portsmouth.—Mrs. Mary A. Ridley awarded contract to Port Norfolk Supply Co., Portsmouth, to erect apartment-house; 21x35 feet; ordinary construction; cost \$5000; plans by S. E. Wiley.

ASSOCIATION AND FRATERNAL

Miss., Meridian.—Ancient Free and Accepted Masons will expend \$4500 to erect Harry T. Howard Hospital for orphans and widows; N shape; 86x40 feet; brick veneer; cement foundations; heating plant to cost \$500; electric lighting; plans by P. J. Krouse, Meridian; contract recently noted awarded to O. P. & J. P. Pool, Meridian.

N. C., Spray.—Young Men's Christian Association, W. R. Lynch, general secretary, awarded contract to J. M. Hopper, Leakville, N. C., for erection of Y. M. C. A. hall recently noted; two stories and basement; 85x100 feet; 22 rooms; steam heat (Davis heater); electric lighting; cost \$20,000; plans by Hook & Rogers, Charlotte, N. C.

Tex., Fort Worth.—Board of Trustees of Polytechnic Lodge, No. 925, Ancient Free and Accepted Masons, J. L. Davidson, secretary, awarded contract to J. P. Stockton, Fort Worth, for erection of proposed temple; 40x70 feet; two stories; brick; stoves; electric lighting; cost \$6000; plans by Waller & Co., Fort Worth.

BANK AND OFFICE BUILDINGS

D. C., Washington.—Washington Investment Co. awarded contract for erection of bank and office building, corner 10th and G Sts. N. W., recently described; nine stories; fireproof construction; low-pressure steam heat; two electric elevators; cost \$135,000; plans by J. H. DeSibour, Hibbs Bldg., Washington; J. L. Marshall, chairman building committee, will superintend construction.

La., Mount Herman.—Mount Herman Bank awarded contract to L. C. Winborn, Hackley, La., for erection of \$4000 bank building; plans by contractor.

Tenn., Chattanooga.—Hamilton Safe Deposit Co., T. R. Preston, president, awarded contract to Geo. A. Fuller Company, New York, N. Y., for erection of Hamilton National Bank building recently noted; price, without equipment, \$300,000; including banking equipment, approximately \$350,000; steel construction; 60x100 feet; 15 stories; plans by R. H. Hunt, James Bldg., Chattanooga; Major W. Dunbar Jenkins, engineer in charge.

Tex., El Paso.—W. J. Fewel awarded contract to Lee & Woodyard of El Paso to erect office building; 10 stories and basement; steel and concrete; 31x86 feet; exterior concrete columns to extend from ground to parapet above roof; 14-foot lobby; six storerooms on first floor; nine upper stories for offices; halls, stairways and lobby finished in marble and tiling; steam heat; electric lighting; two electric elevators; plans by Blubaker & Stern of El Paso. (Recently mentioned.)

Tex., Mart.—First State Bank awarded contract to J. Johnson, Waco, Tex., for erection of bank and office building recently noted; 50x100 feet; brick; electric lighting; plans by Scott & Pearson, Waco, Tex.

Md., Cumberland.—Interstate Trust Co., De Warren H. Reynolds, president, awarded contract to William H. Fissell & Co. of New York to erect bank and office building; fireproof; 50x100 feet; six stories and basement; polished granite base and columns with limestone and plate-glass front; sculptured bronze doors; first story 25 feet high with groined and vaulted ceilings, marble and onyx columns and pilasters, marble floors, screens and wainscoting with bronze grille panels containing nine wickets; money vault lined with toolproof steel plate and provided with time-lock doors, in which will be kept burglar-proof safes, with separate book vault and safety-deposit vault for customers; basement to contain storage vaults for old records, boiler plant, coal bunkers, etc.; elevator machinery in separate dustproof compartment; entire basement will be waterproofed; 500 lights in banking-room; upper five floors will contain 65 offices; marble floors and wainscoting in halls; marble stairways from top to bottom; indirect heating and ventilating system; iron armored conduit system for all lighting; complete vacuum cleaning system; plans by James R. Gordon, 402-404 Fifth Ave., New York.

Va., Burkeville.—Temple Crittenden, contractor, Burkeville, has begun foundation work on proposed bank building for Farmers and Merchants' Bank.

W. Va., Moundsville.—Fostoria Glass Co. awarded contract to Batson & Bulton of Moundsville to erect brick office building.

CHURCHES

Ga., Fitzgerald.—St. Matthew's Episcopal Church awarded contract to Mr. Hayes Fitzgerald, for erection of edifice recently noted; 50x28 feet; tower 45 feet high; fireproof construction; stone and concrete; cost \$5000; plans by B. F. Swafford, Fitzgerald.

Ga., Milledgeville.—Methodist Church awarded contract to J. W. Jay, Shellman, Ga., to erect edifice; seating capacity 1000; hot-air heat; electric lighting; cost \$30,000; plans by C. R. Ellis, Macon, Ga.

Miss., Hickory.—Baptist Church awarded contract to T. A. Shepherd of Hickory to erect addition to edifice.

Tex., Belton.—Christian Church, J. Z. Miller, chairman building committee, will expend \$7000 to erect edifice; two stories; 75x90 feet; stone; ordinary construction; probably steam heat; contracts recently noted awarded to H. L. Karns for stone work and J. B. Ferguson for carpenter work, both of Belton. (See "Machinery Wanted.")

Tex., Houston.—St. Mary's Episcopal Church, Rev. G. R. D. Cadman, pastor, awarded contract to J. W. Hine of Houston to erect edifice; brick; 90x44 feet; one story; slate roof; main auditorium, 35x58 feet; tower; estimated cost, \$11,000; plans by Ollie J. Lorehn, architect, Temple Bldg., Houston. (Recently mentioned.)

CITY AND COUNTY

Ala., Mobile.—City Hall.—City awarded contract at \$27,427.94 to Gabriel Chamblin, Mobile, for remodeling city hall; exterior will be restuccoed and washed with cement wash; interior entirely remodeled; tiled-floor corridors; plumbing contract at \$3000 and wiring at \$65.53 awarded to R. E. Lutz, Mobile.

N. C., Rockingham.—Jail.—B. F. Reynolds, Clerk of Richmond County Commissioners, awarded contract at \$16,240 to W. J. Stephen-

son & Son, Rockingham, for erection of jail recently noted; 50 to 60 cells; fireproof construction; reinforced-concrete walls; hot-water heat; electric lighting; plans by Wheeler & Stern, Charlotte, N. C. (See "Machinery Wanted.")

Tex., Dallas.—Jail.—Dallas County Commissioners awarded contract at \$6325 to Alex. Watson, Dallas, for erection of three-story addition to jail; to Kenison Bros., Dallas, for installation of heating system, and to Southwestern Structural Co. for cell work. (Previously mentioned.)

Tex., El Paso.—City awarded contract to W. J. Shields, Bowie, for erection of city hall and fire station recently noted; 50x140 feet; brick; gas lighting; cost \$10,000.

W. Va., Elkins.—Jail.—Randolph county will expend \$30,000 to erect jail; 41x80 feet; fireproof construction; steam heat; electric lighting; plans by B. F. Smith, Washington, D. C.; contract recently noted awarded to T. R. Whiteman, Elkins; John T. Ward, Elkins, has contract for brick and stone work. (See "Machinery Wanted.")

DWELLINGS

Fla., St. Augustine.—Fred C. Usina awarded contract to Fred Walton, St. Augustine, for erection of dwelling; two stories; 10 rooms; cost \$3500.

Fla., Tampa.—Walter S. Barret awarded contract to Davidson & Adams, Tampa, for erection of dwelling previously noted; one story; five rooms; 46x48 feet; frame; cost \$2000; plans by Bonfoey & Elliott, Tampa.

Ga., Savannah.—Robert M. Hitch has plans by H. W. Witcover, Savannah, for dwelling; entirely surrounded by piazzas; monolithic concrete construction; red tile roof with wide overhanging eaves, beneath which will be frieze of panels and windows, ventilating attic; exterior design in Italian style; building to be 40x45 feet; two stories and attic; fireproof; heating and lighting undetermined; cost \$3000; contract awarded to Eldred Simkins, Savannah.

Ga., Valdosta.—J. H. Touchton awarded contract to W. E. Register, Howell, Ga., for erection of dwelling recently noted; two stories; eight rooms; mill construction; gas and electric lighting; cost \$2500.

Ky., Middlesboro.—Hax T. Price awarded contract to Robt. Crockett, Middlesboro, for erection of dwelling recently noted; two stories; eight rooms; mill construction; contract for heating awarded to American Radiator Co., St. Louis, Mo.; electric lighting; cost \$3000; plans by Geo. F. Barber & Co., Knoxville, Tenn.

La., Baton Rouge.—J. K. Roumain awarded contract to C. D. Stewart, Baton Rouge, for erection of \$10,000 residence.

Md., Annapolis Junction.—Junior Republic awarded contract to De Ward & Son, Annapolis, Md., for erection of Baldwin Memorial Cottage; 25x50 feet; two and a half stories; cost \$4000; plans by Lawrence H. Fowler, 347 North Charles St., Baltimore, Md. (Previously mentioned.)

Md., Baltimore.—Joseph T. Steinacker, 920-36 Frederick Ave. Ext., has plans by Henry J. Tinley, 314 N. Charles St., Baltimore, for two dwellings on Collins Ave.; two and a half stories; frame; 20x52 feet; cost \$5000; awarded contract to John M. Gerber, 1714 Hollins St., Baltimore.

Md., Baltimore.—James G. O'Neill has plans by and awarded contract to George R. Morris, 810 Equitable Bldg., Baltimore, for residence at Windsor Hills; three stories; frame; 30x35 feet; cost \$5000.

Md., Catonsville.—G. L. Golder will expend \$213 to erect dwelling; 30x42 feet; ordinary construction; plans by J. E. Laferty, 11 East Pleasant St., Baltimore, Md.; contract recently noted awarded to John Hill & Sons Company, 3 Clay St., Baltimore, Md.

Md., Catonsville.—Edgar H. Donaldson will expend \$650 to erect dwelling on Monroe Ave.; 36 feet 6 inches by 42 feet; mill construction; hot-water heat; gas and electric lighting; plans by Walter M. Gieske, Gunther Bldg., Baltimore, Md.; contract recently noted awarded to J. Henry Smith, 1426 Light St., Baltimore, Md.

Md., Roland Park.—S. S. Foote, 2727 Maryland Ave., awarded contract to Roland Park Co., Roland Park, for erection of residence; two and a half stories; cost \$7000.

Tenn., Knoxville.—C. B. Burke awarded contract to Satterfield Bros., Knoxville, for erection of dwelling; frame veneered with brick; two stories; cost \$3900.

Tenn., Memphis.—A. J. Botts awarded contract to R. M. Fields, Memphis, for erection of residence; two stories; eight rooms; stone veneer; cost \$4900.

Tenn., Monteagle.—N. D. Overall awarded contract to Geo. W. Parker, Monteagle, for

erection of dwelling recently noted; 54x71 feet; 12 rooms; mill construction; acetylene-gas lighting; cost \$4000; plans by Thos. Marr, Nashville, Tenn.

Tex., Houston.—Ira P. Jones awarded contract to C. J. Stoerkel & Son (address care of Ira P. Jones) for erection of dwelling recently noted; 34x82 feet; brick walls, plastered; lighting plant to cost \$250; cost of dwelling, \$650; plans by Green & Briscoe, Houston.

Tenn., Nashville.—B. F. Blankenship awarded contract to R. B. McCullom, Nashville, for erection of residence; cost \$10,000; plans by Charles Sykes, Nashville.

Va., Portsmouth.—Mrs. Virginia C. Moore awarded contract to Edward Overman, Portsmouth, for erection of residence; two stories; slate roof; frame; cost \$3850; dwelling to be 27x50 feet; plans by Mr. Overman.

Va., Portsmouth.—Virginia C. Moore awarded contract to Edward Overman, Portsmouth, for erection of dwelling; two stories; slate roof; cost \$3350.

Va., Portsmouth.—Wright Memorial M. E. Church awarded contract at \$2955 to C. N. Moody, Portsmouth, for erection of parsonage; two stories; frame; metal roof.

Va., Richmond.—William Von Breling will erect store and dwelling; brick; two stories; gas and electric lighting; cost \$5000; contract awarded to Mr. Selvers, 600 Canal St., Richmond.

Va., Roanoke.—Pace & Markley awarded contract to J. B. Riley, Roanoke, for erection of dwelling recently noted; 35x50 feet; pressed brick; hot-water heating; gas and electric lighting; cost \$6000; plans by H. M. Miller, Roanoke.

HOTELS

D. C., Washington.—Congress Hall Hotel Co., S. A. Manuel, manager, awarded contract to Boyle-Robertson Construction Co., Washington, for erection of addition to hotel; fireproof; cost \$60,000; plans by Geo. P. Halis, Washington. (Previously mentioned.)

La., Shreveport.—Reynolds Hotel Co. (recently reported incorporated with \$150,000 capital stock) awarded contract to Emmons & Co., Dallas, Tex., for erection of hotel; 70x150 feet; semi-fireproof construction; exhaust steam heat; lighting plant to cost \$10,000; cost of hotel \$65,000; plans by Perry, Bridges & Snyder, Shreveport.

Tex., Houston.—Bender Building Co. is being organized with \$500,000 capital stock by Eugene L. Bender (president), Frank V. Bender and others; will erect 10-story hotel; previously noted awarding contract to Fred A. Jones Construction Co. of Houston, Tex., for building foundation; awarded steel work for building also; 100x125 feet.

Va., Roanoke.—Shenandoah Hotel Co. awarded contract to A. L. Marshall, Roanoke, for erection of annex; three stories; to contain stores; steam heat; lighting plant to cost \$800; cost of building, \$38,000; plans by H. M. Miller, Roanoke. (Recently mentioned.)

MISCELLANEOUS STRUCTURES

Ga., Washington.—Orphanage.—St. Joseph's Orphanage has plans by MacMurphy & Story, Augusta, Ga., for addition to dormitory; ordinary construction; heating plant to cost \$1200; gas lighting; cost \$30,000; contract recently noted awarded to C. B. Holly, Augusta, Ga.

Va., Newport News—Commissary.—Virginia Iron, Coal & Coke Co. awarded contract to D. J. Phipps of Newport News to erect commissary at Tonawand Creek; fireproof construction; heating plant to cost \$750; lighting plant \$600; building cost \$31,450; plans by Huggins & Bates, Roanoke, Va.

SCHOOLS

Ala., Alabama City.—City awarded contract to J. H. Haynes, Alabama City, for erection of \$4000 annex to school.

Ala., Gadsden.—Public School Board will expend \$32,000 to erect three-story school building; 72x147 feet; semi-fireproof construction; contract awarded to Peck-Hammond Company, Cincinnati, O., for heating and ventilating; cost \$2000; electric lighting; contract let to J. P. Reynold Company for plumbing; general contract recently noted awarded to T. F. Marlowe; plans by C. B. Smith, all of Gadsden.

Ark., Russellville.—School board, J. A. Clifton, secretary, will expend \$12,000, each, to erect two eight-room school buildings; ordinary construction; brick; steam heat; plans by Frank W. Gibb, Little Rock, Ark.; contract recently noted awarded to T. T. Reddick, Fort Smith, Ark.

Ga., Cyrene.—Bowen Association High School, Rev. Z. J. Edge, superintendent,

awarded contract for erection of dormitory: 50 rooms; frame, mill construction; steam heat; electric lights; plans by Alexander Blair, Macon, Ga. (Previously mentioned.)

Ga., Springfield.—Effingham Academy awarded contract at \$9275 to Douglas (Ga.) Contracting Co. for erection of building; plans by E. J. and M. K. Dunne, Sumter, S. C. (Previously mentioned.)

Ky., Madisonville.—Hopkins County Board of Education awarded contract to Miller & McLemore for erection of school at Grapevine to G. J. Wilkie for schools in Carbon and Cavanah subdistricts, and to J. G. Foley for schools at Smyrna, Howell and Clements; also awarded contracts to Frank Wilkie, G. J. Wilkie and J. G. Foley for painting 14 buildings; A. J. Fox, Paul M. Moore and T. M. Slaton, Building Committee.

Okla., Chattanooga.—City awarded contract for erection of two-story brick school; contract for heating plant to T. A. Whitener, Temple, Okla.; cost \$15,000.

Tenn., Lynnville.—Trustees Robert B. Jones School have plans by Runge, Dickey & Gallaher, Nashville, Tenn., for boys' dormitory; two stories; 32x70 feet; brick; ordinary construction; probably hot-air heat; acetylene lighting; cost \$9000; contract recently noted awarded to J. M. Gladish, Pulaski, Tenn. (See "Machinery Wanted.")

Tex., Crosby.—L. L. Pugh, County School Superintendent, Houston, Tex., awarded contract at \$9000 to Shearer & Goyen, Houston, for erection of two-story brick school. (Recently mentioned.)

Tex., Mount Pleasant.—City awarded contract at \$17,910 to L. W. Wilson, McKinney, Tex., for erection of brick school; three stories. (Previously mentioned.)

Tex., Quinlan.—City will expend \$10,500 to erect school building 60x80 feet; plans by Taylor & Wolf, Fort Worth, Tex.; contract recently noted awarded to Manco Shepherd, Greenville, Tex.

Tex., Post.—Trustees School District No. 1, F. L. Maupin, secretary, awarded contract to Double U Co. Post, for erection of school building recently noted; 60x90 feet; ordinary construction; cost \$13,000; plans and specifications by F. L. Maupin, Post.

Tex., Rhome.—City awarded contract to Miller Bros. of McKinney, Tex., for erection of brick school; cost \$7000.

Tex., San Antonio.—City awarded contract to A. J. Wernette, San Antonio, for \$18,000 worth of buildings, including four-room-and-basement school on South Flores St., cost \$8267; Brackenridge Eighth Grade School, South Alamo St., \$5631; Main Ave. School, \$3257, and several portable schools.

Va., Concord.—City awarded contract at \$2600 to W. L. Brown, Evington, Va., for erection of school; four rooms; plans by Hurd & Caldwell, Lynchburg.

Va., Roanoke.—City awarded contract to Rhodes & Ware, Roanoke, for erection of six-room addition to West End School; cost \$9000. (Previously mentioned.)

Va., South Norfolk.—City awarded contract at \$16,800 to Charles F. Harper, Portsmouth, Va., for erection of nine-room school adjoining and connected with present building; brick; stone trimmings; at \$1475 to W. E. Meglinley, South Norfolk, for plumbing; also awarded heating contract; plans by Lee & Diehl, Norfolk; entire cost, \$21,000.

STORES

Ala., Birmingham.—E. H. Drennen and M. E. Houston awarded contract to Corrigan & Lynn Construction Co., Birmingham, for erection of stores and warehouses recently noted; 50x140 feet; brick; gas and electric lighting; two hand elevators; cost \$11,000; plans by Miller & Martin, Birmingham.

N. C., Selma.—J. B. Person awarded contract to Mr. Jacobs of Dunn, N. C., for erection of three brick stores.

Tenn., Memphis.—H. H. Wade awarded contract to B. L. Yeargin, Memphis, for erection of store and Masonic-lodge building; two stories; brick; cost \$8800.

Tenn., Nashville.—Andrew O'Brien awarded contract to W. T. Hardison & Co., Nashville, for erection of building recently mentioned; brick; two stories; cost \$4000; plans by Chas. Ferguson, Nashville.

Tex., San Marcos.—T. J. Griffin awarded contract to Beasley & Gory, San Marcos, for erection of proposed store building.

Va., Appalachia.—Virginia Coal & Coke Co., Bristol, Tenn., awarded contract to J. Phipps, Newport News, Va., for erection of wholesale grocery building; cost \$25,000.

Va., Appalachia.—Stonega Coke & Coal Co., Stonega, Va., awarded contract to D. J. Phipps, Newport News, Va., for erection of \$2100 wholesale grocery building; size 82x37 feet; plans by D. J. Phipps; elevator and

heating plant to be installed at additional cost.

Va., Roanoke.—Shenandoah Hotel Co. awarded contract to A. L. Marshall, Roanoke, for store and hotel building. (See "Hotels.")

THEATERS

Md., Baltimore.—New Theater Co. organized with C. E. Whitehurst, president, 415 West Franklin St.; G. E. Smith, vice-president and treasurer; W. S. Symington, secretary, 1000 Maryland Trust Bldg.; awarded contract to Morrow Bros., 218 West Saratoga St., Baltimore, for theater at Park Ave. and Lexington St.; three stories; fireproof; Roman brick, with terra-cotta trimmings; front elevation French Renaissance; entrance covered with iron and glass marquise; marble stairway 20 feet wide; seating capacity 1700; two galleries; plans by A. Lowther Forrest, Professional Bldg., Baltimore. (Previously mentioned.)

WAREHOUSES

Ala., Birmingham.—E. H. Drennen and M. E. Houston awarded contract for erection of warehouse recently noted. (See "Stores.")

Ark., Pine Bluff.—City awarded contract to M. M. Bruce, Pine Bluff, for erection of warehouse recently noted; small building.

Md., Baltimore.—Edward A. Sauerwein awarded contract to Thomas L. Jones & Son, 410 West Saratoga St., Baltimore, to erect warehouse at 232-234 North Howard St.; four stories; 30x94 feet; slab roof; cost \$25,000.

Md., Baltimore.—Baltimore Belting Co. will erect five-story warehouse; 32x12 feet; slow-burning construction; cost \$30,000; plans by Chas. Barton Keen, Philadelphia, Pa.; contract recently awarded to Thos. B. Stanfield & Co., 109 Clay St., Baltimore.

Md., Canton, P. O., Baltimore.—Western Maryland Railway awarded contract to Rodgers & McCall, 21 East Saratoga St., Baltimore, to erect warehouse; two stories; fireproof; plans by Emory & Nussear, 415 Professional Bldg., Baltimore.

Tex., Gainesville.—Garvey & Frasher have plans by and awarded contract to Garrett & Collins, Gainesville, for erection of warehouse recently noted; 40x80 feet; fireproof construction; cost \$4000.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Birmingham.—The Atlanta, Birmingham & Atlantic Railway has completed its extension from Bessemer into Birmingham, giving it its own through route to Brunswick, Ga.

Ala., Cullman.—The Cullman Coal & Coke Co., it is reported, contemplates issuing \$750,000 of bonds at a meeting on June 21, and will use the proceeds to complete its railroad.

Ala., Decatur.—The Louisville & Nashville Railroad, which is building second track from Flint Station to Holmes Gap, 20 miles, is reported contemplating extending the double track to Birmingham, 59 miles. W. H. Courtenay is chief engineer at Louisville, Ky.

Ala., Geneva.—The Geneva & Enterprise Traction Co. is reported preparing plans for an electric railway between the two places, and right of way is being obtained. Powerhouse to be at Double Bridge Creek.

Ala., Leeds.—Engineers are reported surveying for the proposed railroad to enter the Cahaba coal fields at Malone, four miles from Leeds. H. F. DeBardeleben and associates are interested.

Ala., Tuscaloosa.—Woolsey Finnell is reported locating the route of the Tuscaloosa Mineral Railroad from Tuscaloosa to Brookwood, Ala., 18 miles.

Ark., Doniphan.—The Doniphan Lumber Co. is reported to have begun clearing right of way on its proposed railroad between Bald Knob and Quitman, about 63 miles.

Ark., Magnolia.—The Louisiana & Northwestern Railroad is reported to have about completed arrangements for extending from Magnolia via Waldo to Prescott, Ark., 40 miles. J. A. Knox is engineer at Homer, La.

Ark., England.—Reported that contract has been let for an extension of the Arkansas & Central Railroad from McGregors Break to Stuttgart, Ark., 18 miles. Robert M. Foster and others are interested. Address Stuttgart.

Ark., Pine Bluff.—The Pine Bluff & Northern Railway Co. has been chartered to build its proposed line from Pine Bluff to Searcy, with a branch to Little Rock; total length of main line about 75 miles and the branch 25 miles. The incorporators are W. J. Miller of Lamar, Mo., president; W. M. Kavanaugh

of Little Rock, first vice-president; C. P. Harnwell of Little Rock, secretary and treasurer and general counsel; F. C. Kyte and T. M. Fletcher.

Fla., Gainesville.—F. S. Parrigin, chief engineer of the Tampa & Jacksonville Railroad Co., is reported as saying that bids for an extension will soon be asked. Surveys made.

Fla., Pensacola.—The Jacobi Lumber Co. of Roberts, Fla., it is reported, proposes to build a railroad.

Fla., Pensacola.—The Pensacola, Mobile & New Orleans Railroad is reported to have graded 16 miles of its extension and will erect drawbridges over the Tensas and Mobile rivers and a trestle over the Apalachicola River. The road will be 45 miles long. Henry McLaughlin is president at Pensacola.

Ga., Dalton.—F. T. Reynolds, secretary of the Chattanooga (Tenn.) Chamber of Commerce, is reported as saying that an electric railway will be built soon to connect Dalton with Chattanooga and that representative capitalists are working on the plan.

Ga., Carnesville.—The Carnesville Railway to be built from Toccoa to Carnesville, Ga., 20 miles, will include one bridge 175 feet long over the North Broad River. Date for construction bids not yet decided. W. S. Erwin, E. S. Honeycutt and J. R. Hall of Carnesville are among those interested.

Ga., Newnan.—R. M. Hall of Newnan, chief engineer of the proposed Western of Georgia Railroad, is quoted as saying that contracts will soon be let from Franklin via Newnan to Aberdeen, Ga., 36 miles. Surveys made and right of way and capital obtained. I. L. McCord, 42 Broadway, New York, is general contractor. I. N. Orr of Newnan is president.

Ky., Brooksville.—E. J. Hunter of Chicago is reported as saying that he is interested in a plan to build a railroad from Cincinnati to coal fields in Eastern Kentucky. It may reach Brooksville, Mt. Olivet, Flemingsburg and other points.

Ky., Frankfort.—Chas. E. Hoge of Frankfort and others are reported organizing to build an electric railway from Owenton to Frankfort.

Ky., Hyden.—The report that the Ferguson Contracting Co. of Cincinnati is surveying for a railroad in Leslie county, Kentucky, is denied.

La., Baton Rouge.—Reported that the Frisco System contemplates the construction of an extension from Erwinville, in West Baton Rouge parish, to Lakeland and other points to Pointe Coupee parish. M. C. Byers is chief engineer at St. Louis, Mo.

La., Baton Rouge.—The Yazoo & Mississippi Valley Railroad (Illinois Central system) will, it is reported, improve the roadbed between Baton Rouge and Hammond, La., including filling in bridges. A. S. Baldwin is chief engineer of the system at Chicago, Ill.

La., Donaldsonville.—Reported that New Orleans capitalists contemplate building an electric railway from Donaldsonville to the Gulf of Mexico via Thibodaux. The Mayor may be able to give information.

La., Hammond.—The Hammond Interurban Railway Co. proposes to build five miles of line, including a frame bridge, from Hammond to Genesee, via Natalbany, La., through level country. Officers are W. E. Libby, president; B. H. Brooks, vice-president; T. W. Cate, treasurer; F. G. Bueler, secretary. Charter not yet obtained.

La., Shreveport.—The Mineral Wells Electric Co. of Shreveport, capital \$350,000, has filed charter, and among other things proposes to operate electric railways. The directors are Samuel B. Cantey, president, Fort Worth, Tex.; N. C. Blanchard, vice-president, Shreveport, La.; W. C. Forbess, secretary; David T. Bonar, both of Fort Worth, and L. R. Smith of Shreveport.

Md., Cumberland.—The Carter Construction Co. is reported to have begun work on the extension of the Western Maryland Railway at the west end of Cumberland Narrows.

La., Richardson.—The Louisiana & Northwestern Railroad is reported to have about completed arrangements for extending from Magnolia via Waldo to Prescott, Ark., 40 miles. J. A. Knox is engineer at Homer, La.

Ark., England.—Reported that contract has been let for an extension of the Arkansas & Central Railroad from McGregors Break to Stuttgart, Ark., 18 miles. Robert M. Foster and others are interested. Address Stuttgart.

Miss., McComb City.—Work is reported under way on the proposed electric interurban railway from McComb City to Summit and Godbold Wells, about 4½ miles. J. E. Randall of Gulfport, Miss., is the contractor.

Mo., Phillipsburg.—Grading is reported begun on the Laclede, Dallas & Western Railway way from Phillipsburg to Buffalo, 45 miles. Davis & Blair of Joplin, Mo., have the contract for 22 miles from Phillipsburg to Buffalo, beyond which line will be extended

eight miles. H. W. Smith, 318 American Bank Bldg., Kansas City, Mo., is chief engineer.

Mo., St. Louis.—The Illinois Traction Co., it is reported, contemplates building a line from St. Louis to Kansas City, about 250 miles; also another line from St. Louis to Cairo, Ill. H. E. Chubbuck is general manager at Peoria, Ill.

Mo., St. Louis.—The Illinois Traction Co., it is reported, will spend \$3,000,000 for construction, including buildings in St. Louis, in addition to the bridge. H. E. Chubbuck is general manager at Peoria, Ill.

N. C., Ahoskie.—Most of the right of way for the proposed Emporia & Ahoskie Railroad is reported secured from Emporia, Va., on the Atlantic Coast Line, via Margaretsville, Pendleton and Murfreesboro, N. C., to Ahoskie, 54 miles, including three small bridges. W. S. Goodwyn of Emporia, Va., and others are interested.

Okla., Oklahoma City.—The Choctaw, Newcastle & Western Railroad Co., G. B. Stone of Oklahoma City president, proposed to build 12 miles of line to Savanna. The other directors are W. H. H. Clayton, Jr., vice-president; Henry Le Boquet, secretary and treasurer; A. H. Price, W. F. Wilson. J. E. Le Boquet is general manager, and Harry L. Baker, chief engineer.

Okla., Stillwater.—Contract is reported let by the Oklahoma Public Service and Interurban Lines for grading 13 miles and building bridges on the Morrison division, the work to be completed by October 1. L. J. Lampke is president and R. A. Sturgeon is chief engineer.

S. C., Abbeville.—J. S. Stark and R. E. Cox of Abbeville and J. Bell of Due West, S. C., are reported promoting plans for building an electric railway from Abbeville to Greenville, 15 miles.

Tenn., Memphis.—Bids have been asked for building the terminals of the Memphis Union Station Co., including a large main building. Plans were prepared by W. H. Courtenay, chief engineer of the Louisville & Nashville Railroad, Louisville, Ky. J. L. Lancaster is president of the Memphis Union Station Co.

Tex., Amarillo.—T. M. Wright of Waco, Va., who is interested in real estate at Conway, Tex., and elsewhere in the Panhandle, is reported as saying that he will build an interurban railway from Panhandle City to Claude, Tex., 15 miles, via Conway, where the power plant will be situated.

Tex., Beeville.—The Nueces Valley Railroad Co. has filed its charter for a line from Beeville to Eagle Pass, Tex., 175 miles, and it is said that construction contract will soon be let. The incorporators include Lee Frisby of Austin, Tex.; R. M. Buck of Fort Smith, Ark.; W. A. Frisby of Beeville, Tex.; Abe Frisby of Trinity, Tex.; Fred Boyd of Austin, J. P. Muckleroy of Tilden, Mrs. S. R. Boyd of Austin, Maud Frisby of Beeville and Hugo S. Schmidt of Austin.

Tex., Brownsville.—An officer of the St. Louis, Brownsville & Mexico Railway denies the report that an extension will be built southward from Brownsville.

Tex., Cleburne.—An officer of the proposed Dallas and Cleburne Interurban Railway is quoted as saying it is uncertain when work will begin. Route is from Dallas via Eagle Ford, Cain, Webb, Mansfield, Lillian, Alvarado and Mosston to Cleburne, 50 miles. Large bridge required over Trinity River. G. C. Hamington of Indianapolis, Ind., is president, and Joseph Edwards of Mansfield, Tex., chief engineer. H. M. Hyatt of the Empire Construction Co., St. Louis, has been mentioned in connection with this enterprise.

Tex., Dallas.—The Denison & Pacific Suburban Railway Co. is reported organized to build several suburban electric lines to points on the Texas & Pacific Railway. L. S. Thorpe is mentioned as president and W. Cumming as vice-president at Dallas, Tex.

Tex., Dallas.—Concerning the contemplated railway from Dallas to Palestine, a committee of five members of the Dallas Chamber of Commerce and three members of the Palestine Board of Trade was appointed to formulate a plan for organization and to report at a called meeting. John R. Babcock of Dallas or C. A. Sterne of Palestine can give information.

Tex., Del Rio.—The Kansas City, Mexico & Orient Railway is receiving bids until June 4 for grading northward from Del Rio towards San Angelo. W. W. Colpitts of Kansas City, Mo., is chief engineer and Mr. Parker of Del Rio is engineer in charge.

Tex., Denison.—The Missouri, Oklahoma & Gulf Railway proposes to build crossings over several streets, including a bridge at Crockett Ave. J. J. Harrison is chief engineer at Durant, Okla.

Tex., Galveston.—Reported that the St. Louis Southwestern Railway is considering plans for an extension which will enable the company to reach Galveston. M. L. Lynch is chief engineer at Tyler, Tex.

Tex., Hamilton.—Thompson & Scott of St. Louis, general contractors for the Stephenville North & South Texas Railway extension from Hamilton to Batesville, 32 miles, are reported to have let subcontracts to W. P. McCoy, J. H. Kilbeck and B. J. Grammett of Hamilton on the first 17 miles.

Tex., Kelty.—The report that the Angelina & Neches River Railroad proposes to build an extension is officially denied.

Tex., Lometa.—The Gulf, Colorado & Santa Fe Railway is reported to have let contract for two bridges on the Lometa extension, one over the Colorado River with three concrete piers 64 feet high and three steel spans, consisting of one truss of 200 feet and two deck girders, one 100 feet and the other 60 feet, besides a trestle approach 100 feet long; another over the San Saba River with two concrete piers and two through girders, one of 100 feet and the other 60 feet, with an 80-foot trestle approach.

Tex., Rossman.—The Black Bayou Railway Co. of Rossman has been chartered with \$50,000 capital to build a line from Myrtle, La., to Rossman and thence to Mosely, Tex., 22 miles. The incorporators are S. H. Chatten, F. H. Brown and C. C. Rossman of Kansas City, Mo.; R. L. Trigg, S. M. Ragland, Robert Tucker, J. G. Hoffman and S. A. Colton of Texarkana, Ark.; W. H. Welch and J. P. Cook of Myrtle, La.

W. Va., Clendennin.—The Charleston, Clendennin & Gauley Railroad Co. is reported chartered for a line from a point on Elk River near the mouth of Blue Creek to a point on the same river near the mouth of Big Buffalo Creek. The Mayor may be able to give information.

W. Va., Huntington.—Concerning a report that the Chesapeake & Ohio Railway contemplates building an extension of the Guyan Valley branch from the mouth of Big Bluff in Logan county through Wyoming county to connect with the Piney branch, an officer says that he knows of no such work in contemplation.

W. Va., Sistersville.—The Parkersburg & Ohio Valley Electric Railway Co. is reported to have resumed construction between Sistersville and Friendly. V. B. Archer of Sistersville and others are interested.

W. Va., Oceana.—The Keys-Fannin Lumber Co. of Herndon will, it is reported, build a narrow-gauge railroad from a connection with the Virginian Railway on Micajah Ridge to timber lands.

STREET RAILWAYS

Miss., Meridian.—The Meridian Street Railway Co., it is reported, contemplates a suburban extension.

Tenn., Memphis.—The Memphis Street Railway, it is reported, will extend its new Raleigh road line about 1½ miles, plans being completed.

Tex., Greenville.—Preliminary matters are reported closed and construction of street railway is to begin within about one month by S. A. Price, N. T. Lause and A. Emmanuel, representing capitalists of Dayton, O. From 5 to 10 miles of line are to be built.

Tex., Cleburne.—A committee of the Board of Trade is reported to have raised \$30,000 in subscriptions, closing a contract with Daniel Hewitt to build six miles of electric street railway.

Tex., Stamford.—R. O. Whyman of Whyman & Barton, engineers at Dallas and Amarillo, Tex., is reported interested in a plan to build a street railway in Stamford.

Modern Coal Mining Plants.

Bulletin No. 20, issued by the Roberts & Schaefer Company, Old Colony Bldg., Chicago, presents views and descriptive data of eighteen modern coal-mining plants, tipplers, washeries, etc., which this company has recently completed. These include among others a general view of the plant of the Big Vein Pocahontas Coal Co., Pocahontas, Va., view of coal conveyor from mine to tipple, and rotary dump within the mine of the same company; Republic Coal Co.'s No. 2 mine, Roundup, Mont.; fan designed and installed for the Canada West Coal Co. at Taber, Alberta, Canada; mining plant of Ford Collieries Co., Curtis, Pa.; standard three-track steel tipple at Farmington, W. Va., for George's Creek Coal Co., Baltimore, Md.; locomotive coal chutes for Middletown (Ill.) Coal Co. The Roberts & Schaefer Company is consulting engineer and contractor for complete coal-mining plants, coal washeries, coaling stations and briquetting plants.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery and supplies wanted.

Bakery Ovens.—Cohn & Block, 89 Hope St., Cape Town, British South Africa, want catalogues and prices on ovens suitable for manufacture of passover cakes. (See "Biscuit Machinery.")

Bank Fixtures.—E. C. Hosford & Co., Eastman, Ga., will receive bids June 14 on bank fixtures for bank building at Statesboro, Ga.

Biscuit Machinery.—Cohen & Block, 89 Hope St., Cape Town, British South Africa, want catalogues and prices on biscuit machinery. (See "Bakery Ovens.")

Boilers.—J. M. Johnston, Florence, S. C., wants prices on steam boilers.

Boiler.—J. D. Strickland, Stillson, Ga., wants prices on new or second-hand 60 or 80 horse-power return tubular boiler; give description and location.

Brick.—J. L. Ward, cashier Bank of Osceola, Osceola, Ark., wants prices on cream-faced and ordinary clay brick.

Bridge Construction.—Carolina Engineering Co., L. C. Carter, manager, Burlington, N. C., is open for bids on piers, fabricated steel, erection and lumber for 540-foot steel bridge across Saluda River; will furnish drawings and information.

Bridge Construction.—Hillsboro County Commissioners, Tampa, Fla., will receive bids until June 7 for construction of steel drawbridge across Six-Mile Creek; George Fuchs, County Engineer.

Bridge Construction.—Board of Roads and Revenues of Morgan County, P. G. Walker, chairman, Madison, Ga., will receive bids until June 9 for construction of bridge over Hard Labor Creek, known as Boon's bridge; structure to be 340 feet long and 20 feet wide; complete plans and specifications on file at courthouse; certified check for \$1000 to accompany each bid; J. W. Douglas, Clerk.

Bridge Construction.—Fort Smith and Van Buren district, Roy M. Johnston, secretary, Fort Smith, Ark., will receive bids until June 13 for substructure; substructure and erection of superstructure; superstructure delivered, and superstructure delivered and erected of bridge over Arkansas River between Fort Smith and Van Buren, Ark.; bridge consists of nine 196-foot spans carrying double-track electric railway and single-track railway on paved roadway between trusses, two paved roadways, and two sidewalks on cantilevers outside trusses; piers and abutments will be sunk by pneumatic process; steel, 4000 tons; masonry, 10,000 cubic yards; bids to be accompanied by certified check for \$10,000; plans and specifications may be had of consulting engineers, Waddell & Harrington, 1012 Baltimore Ave., Kansas City, Mo., upon deposit of \$50.

Bridge Construction.—John M. Murch, County Auditor, Galveston, Tex., will receive bids until June 6 for construction of wooden bridge over Dickinson Bayou, Perry and Austin League, on extension of Alta Loma and League City road, Galveston county; plans and specifications on file in office of County Auditor, from whom copies can be had on application; certified check for 5 per cent. of proposal to accompany each bid.

Bridge Construction.—Board of Tulsa County Commissioners, W. L. North, chairman, Tulsa, Okla., will receive bids until June 21 at office of C. F. Rogers, County Clerk, for construction of 28 bridges; plans and specifications on file with Mr. Rogers; certified check, 10 per cent. of bid.

Briquette Machinery.—Yeager & Bethel Hardware Co., Tallahassee, Fla., wants information and prices on machinery for making briquettes of sawdust and shavings from saw and planing mills.

Brooms.—James T. Kilby, Danville, Va., wants addresses of broom manufacturers.

Brush Manufacturers.—Dr. Chas. F. Crouch, Dawson, Ga., wants to correspond relative to placing order for manufacture of tooth brushes with celluloid handles.

Building Materials, etc.—W. W. Cameron, Waco, Tex., wants prices on steel studding, roof tiling, vacuum cleaner, terra-cotta and stone.

Building Materials.—H. C. Jarvis, 400 Park Ave., Baltimore, Md., wants prices on building materials, including concrete, brick, plastering, mill work, painting, plumbing, tiling, excavating, glazing and electric work.

Building Materials, etc.—Chas. H. Whitehill, 439 North Wabash St., Wheeling, W. Va., wants prices on building materials (including seating) for church.

Building Materials.—W. B. Smithson, Pulaski, Tenn., wants prices on building materials, including heating and lighting plant, slate roofing, columns (including four large columns for porch, colonial design), 800 square feet tile flooring for porch, plumbing and bathroom fixtures, cut stone, water tables, door and window sills, lintels and stone steps.

Canning Machinery, etc.—E. P. Young, Corpus Christi, Tex., wants information and prices on canning, pickling and preserving plants ranging from \$500 up.

Cars.—Joseph E. Bowen, 901 Bank of Commerce Bidg., Norfolk, Va., wants narrow-gauge passenger cars; good order; prompt shipment.

Cars.—Variety Works Co., Dawson, Ga., wants five or six logging cars, 60,000 pounds capacity; suitable for use over rails of chartered railroads.

Cars.—Pennsylvania Equipment Co., West End Trust Bidg., Broad and South Penn Sq., Philadelphia, Pa., wants few self-dumping standard gauge steel ore cars; about 80,000 pounds capacity; immediate delivery.

Cigarette Machinery.—Melvin C. Churchill, 1729 Congress Ave., Houston, Tex., wants to correspond with manufacturers of cigarette machinery.

Coffee Mills.—Luciano N. Leivas & Bro., 1075 Moreno St., Buenos Aires, Argentina, want to correspond with manufacturers of small coffee mills.

Collar-pad Machinery.—B. A. McAllister, Conestee, R. F. D. No. 4, Greenville, S. C., wants to correspond with manufacturers of machinery for making horse-collar pads.

Concrete Mixer.—Monk & Ritchie, Pine Bluff, Ark., wants new or second-hand concrete mixer.

Cells, etc.—T. R. Whiteman, Elkins, W. Va., wants prices on jail cells with standard locking device for \$30,000 jail.

Contractors' Supplies, Machinery, etc.—Sessel & Rose, Box 308, Bulawayo, British South Africa, want to correspond with manufacturers of machinery and supplies, including mining equipment and material, contractors' supplies, leather, fire appliances and various machinery; correspondence with view to representation.

Cotton Compress Supplies.—Amory Compress Co., L. E. Luckie, president, Amory, Miss., will buy bagging, tags, ties, inks, etc.

Cottonseed Oil.—Ferdinando Bounous, No. 60 Via Santa Chiara, Turin, Italy, wants to correspond with firms exporting cottonseed oil to Italy.

Dredging.—See "Wharf Construction."

Drill Bit.—Bray Mining Co., Vint N. Bray, manager, Springfield, Mo., wants prices on diamond drill bits.

Electric Conduits and Wiring.—See "Heating Plant, etc."

Electric Lighting.—Town Council, Luray, Va., will open bids June 27 for lighting streets; bidders to give price on arc lights, four ampere and six ampere, and on incandescent lights, 16 and 32 candle power, number of lights to be determined by Council; contract to be for three years, with privilege of five years, at option of Council. •B. F. Batman, Recorder.

Electric Wiring, etc.—Treasury Department, office of supervising architect, James Knox Taylor, Washington, D. C., opens bids June 27 for installation of conduit and electric wiring and gas piping system in United States postoffice at St. Louis, Mo., in accordance with drawings and specifications; copies to be had at architect's office or that of superintendent of construction at St. Louis.

Electrical Machinery.—See "Smelting Furnaces."

Electrical Machinery.—Oxford Buggy Co., Oxford, N. C., wants prices on induction motors for 60-cycle 220-volt current.

Electrical Machinery.—Wheeling Traction Co., T. H. Conderman, president, Wheeling, W. Va., will buy low-pressure turbine, 1500 K. W. H., with condenser, etc.

Electrical Machinery.—Daniel Killion, 211 North 3d St., Philadelphia, Pa., wants No. 11 "A" (Brush) arc machine, 2000 candle-

power, 9.6 amperes; oil regulator (preferred) or magnetic regulator; machine subject to inspection before shipment; good operative condition guaranteed.

Electrical Machinery.—Maryland Coal & Iron Co., W. H. Morgan, secretary, Frostburg, Md., wants prices on 100-kilowatt generator.

Electrical Machinery.—J. R. Dobyns, superintendent Mississippi Institution for the Deaf, Jackson, Miss., will receive bids until June 13 for furnishing and installing electric motors.

Elevators.—Proposals will be received by Board of Awards, Baltimore, Md., for furnishing and installing three electric elevators in Baltimore City Courthouse; bids must be in sealed envelopes, addressed to Board of Awards, and marked on outside "Proposals for Elevators at Baltimore City Courthouse," and left with J. Sewell Thomas, City Register, at his office in City Hall on or before 11 A. M. June 8; each bid accompanied by certified check of bidder on Clearing-house Bank to amount of \$500, made payable to Mayor and City Council; successful bidder required to give bond and comply with city charter respecting contracts; drawings and specifications at office of Inspector of Buildings, Edward D. Preston, City Hall.

Engine Lathe.—John G. Duncan Co., Box 268, Knoxville, Tenn., wants prices on second-hand engine lathe; 9" swing x 30" bed; immediate shipment.

Excavation Machinery.—J. C. Kelso, 206 Tremont St., Galveston, Tex., will want excavation machinery.

Fiber Buckets, etc.—Samuel S. Smith, Elizabethtown, Miss., wants addresses of manufacturers

Flour Mill.—James Hand & Co., John W. Woodward, manager, Purvis, Miss., want prices on flour-mill machinery; have power.

Gas Motors.—See "Flying Machine Accessories."

Grading.—Erle W. Loyd, City Clerk, Duncan, Okla., will receive bids until June 15 for grading, guttering, etc., 7th, 8th, 9th and 10th Sts. from Sycamore to Hickory Ave.; each street to be graded and guttered from curb to curb, width of 40 feet, also grading 4 feet of parking on each side, making total width of 48 feet; also Oak, Pecan and Hickory Aves. from 7th to 11th St.; Chestnut, Beech, Ash, Walnut, Willow, Maple, Elm and Mulberry Aves. from 7th to 10th St.; each avenue to be graded and guttered for width of 40 feet, also grading 12 feet of parking on each side, making total width of 66 feet; plans, profiles and specifications on file in office of City Clerk; each bid to be accompanied by certified check for 3 per cent.

Flying Machine Accessories.—Greenwood Automobile Co., 305 Howard St., Greenwood, Miss., wants to correspond with dealers in flying machine accessories; also with manufacturers of aeroplane motors.

of wood-fiber goods, including water pails, etc.

Fiber-extracting Machinery.—H. W. Townsend, care of Alpine Power Co., Alpine, Tex., wants addresses of manufacturers of machines for extracting fiber (Mexican textile fiber) from cactus plants.

Filter Plant.—Board of Water Commissioners and Bond Commission, Atlanta, Ga., will receive bids until June 21 for furnishing and erecting 8,000,000-gallon horizontal pressure filter plant; specifications and blueprints will be furnished on application to W. Z. Smith, general manager Atlanta Waterworks.

Fire Hose.—J. R. Dobyns, superintendent, Jackson, Miss., will receive bids until June 13 for fire hose for Mississippi Institution for Deaf.

Fire Hydrants.—Ennis M. Douglass, City Clerk, Memphis, Tenn., will receive bids until June 7 for furnishing fire hydrants as per following specifications: To be delivered to fire department headquarters, South Front St. and Union Ave., 50 fire hydrants with 6-inch connection to main and barrel not less than 6-inch internal diameter, with one 4-inch steamer connection and two 2½-inch hose connections, all Memphis standard thread; stems to have bronze thread and bronze bushing where passes through stuffing-box, with square nut; standpipe to bury 3½ feet from top of main to sidewalk line; also for 50 auxiliary gate valves, with 6-inch bell connections and adjustable two-piece valve boxes with caps; all hydrants and valves to open right, and valves to fit Memphis standard key; delivery to be made within 90 days after awarding of contract; certified check for £250 to accompany each bid.

Freezers.—Luciano N. Leivas & Bro., 1075 Moreno St., Buenos Aires, Argentina, want to correspond with manufacturers of bucket-shaped ice-cream freezers with capacity of 1 to 15 liters.

Gas Producer Plant.—King & Martin, managers, want bids on light and power plant for Crescent Hotel, Eureka Springs, Ark.; gas or gas producer system.

Glue-room Equipment.—E. S. Clayton, superintendent Peerless Lumber Co., 2501 Fifth Ave., Birmingham, Ala., wants to correspond with manufacturers of glue-room appliances, including chain clamps, cabinet clamps, stacking clamps, etc.

Grading.—Wilcox Realty Corporation, Selma, Ala., will receive bids until June 10 for grading streets in Park Pl.; plans and specifications on file in office of company and of W. O. Crisman, engineer, Selma, Ala.; copies of plans may be secured upon application to office of company or of engineer.

Handles.—Luciano N. Leivas & Bro., 1075 Moreno St., Buenos Aires, Argentina, want to correspond with manufacturers of wooden handles for hatchets (axes) and picks; Spanish models.

Heating Plant.—E. C. Huggins, Lynnaville, Tenn., wants prices on heating plant for \$3000 dormitory.

Heating Plant.—W. B. Smithson, Pulaski, Tenn., wants prices on heating plant. (See "Building Materials.")

Heating Apparatus.—Sealed proposals will be received at office of business director of Louisville School Board until June 15 for erection of boiler-house and installation of heating apparatus for Broadway School as a whole according to plans and specifications, which can be seen at my office or the office of Brinton B. Davis, architect, Atherton Bldg. For general conditions, certified check, bond, etc., see specifications. Samuel D. Jones, Business Director, Louisville, Ky.

Heating Plant.—W. J. Stephenson & Son, Rockingham, N. C., want bids on heating plant for \$16,240 jail building.

Heating Plants.—Christian Church, J. Z. Miller, chairman building committee, Belton, Tex., wants prices on steam-heating plants.

Heating Plant, etc.—Escambia County Commissioners, Pensacola, Fla., will receive bids until June 23 for installation of plumbing, heating, sewerage and drainage and electric conduit and wiring of jail; plans and specifications can be had by applying at office of James MacGibbon, County Clerk, or of Rudolph Benz & Sons, Masonic Temple, Mobile, Ala.; separate bids will be received on plumbing, sewerage and drainage, on heating and on electric conduit and wiring or on whole. For further particulars address County Clerk.

Inks.—See "Cotton Compress Supplies."

Knitting Machinery.—A. E. Hammonds, Akers Bldg., Lawton, Okla., wants addresses of manufacturers of knitting machinery.

Laundry Equipment.—T. R. Whiteman, Elkins, W. Va., wants prices on steam laundry equipment.

Lathes, etc.—Southern Motor Works, 1306 Clinton St., Nashville, Tenn., will open bids about June 10 or 15 on lathes, boring mills and other machinery for manufacture of automobiles.

Lead.—Baltimore (Md.) Board of Awards will receive bids until June 8 for furnishing and delivering to Water Board at its Gay-St. yard, Gay and Wolfe Sts., 50 tons, 2000 pounds per ton, of Omaha pig lead; specifications for lead may be obtained at office of Alfred M. Quick, Water Engineer, City Hall; each bid to be accompanied by certified check for \$500.

Levee Work.—U. S. Engineer Office, 3338 St. Charles Ave., New Orleans, La. Sealed proposals for constructing 350,000 cubic yards of earthwork in Lower Tensas Levee District will be received until June 27; information upon application; H. Burgess, Major, Engineer.

Lighting Plant.—E. C. Huggins, Lynnaville, Tenn., wants prices on lighting plant for \$3000 dormitory.

Lighting Plant.—W. B. Smithson, Pulaski, Tenn., wants prices on lighting plant. (See "Building Materials.")

Lumber, etc.—Bids will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until June 20 for furnishing lumber, manganese sheets for revolving screens for rock-crushing plant, steel castings, fire-box steel, crucibles and hose couplings, etc. Blanks and general information relating to circular No. 587 may be obtained at above office or office of assistant purchasing agents, 24 State St., New York; 55 National Realty Bldg., New Orleans; 1086 North Point St., San Francisco, Cal.; also from U. S. Engineer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Com-

merce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Machinery.—See "Contractors' Supplies, Machinery, etc."

Machine Tools.—McKeel-Richardson Hardware Co., 153 Main St., Washington, N. C., wants 10-foot machine lathe; medium-sized power drill; small shaper; all second hand; state price and condition.

Metal Lath.—Patterson & Rouey, P. O. Box 105, Amarillo, Tex., want prices on metal lath.

Miscellaneous Manufactures.—Bengal Import & Export Co., No. 2 Amratolla St., Calcutta, India, wants prices (with view to representation) on various manufactures, including marine, mining and mill stores, metals, electric requisites, hardware, toys, haberdashery, paints, oils, stationery, cement, perfume, soap, glassware, cutlery, machinery, etc.

Molding Machinery.—E. N. Camp & Sons, Moreland, Ga., want prices on machinery for molding light gray-iron castings.

Paving.—City Clerk, Nowata, Okla., will receive bids until June 13 for construction of 38,442 square yards brick paving, together with combined curb and gutter and storm sewers; certified check for 2 per cent. of bid. For details and specifications address City Engineer, P. O. Box 847.

Paving.—John Skain, Mayor, Lexington, Ky., will receive separate bids until June 9 for improvements of Limestone St. from Maxwell to Short St., and Short St. from Mill St. to Broadway, with brick, bituminous, creosoted wooden block or asphalt paving; former work will approximate 5963 square yards paving, 915 cubic yards concrete and 370 feet of limestone or granite curbing; latter 1486 square yards paving, 347 cubic yards concrete and 100 feet of granite, lime-stone or concrete curbing.

Paving.—J. D. Elliott, Mayor, and Board of Aldermen, Hickory, N. C., will receive sealed proposals until June 14 for street improvements, consisting of 28,000 square yards macadam; 10,000 square yards macadam, using tar or asphalt as binder; 6000 square yards concrete sidewalks; 9000 linear feet combined concrete curb and gutter; 36,000 cubic yards grading; plans, profiles and specifications on file at city hall and at office of Gilbert C. White, engineer, Durham, N. C.; certified check for \$1000; usual rights reserved.

Paving.—Cuno H. Rudolph, John A. Johnston and William V. Judson, Commissioners, Washington, D. C., will receive bids until June 4 for laying cement sidewalks in District of Columbia. Forms of proposal, specifications and necessary information may be obtained from chief clerk, Engineer Department, Room 427 District Bldg.

Piping.—See "Electric Wiring, etc."

Plows, etc.—Luciano N. Leivas & Bro., 1075 Moreno St., Buenos Aires, Argentina, want to correspond with manufacturers of plows having one share and one wooden grip (handle); also wooden shovels, with hafts, No. 3. **Pumps.**—J. Newton Johnston, Florence, S. C., wants prices on steam or motor-driven pumps.

Pipe and Fittings.—Oxford Buggy Co., Oxford, N. C., wants prices on pipe and pipe fittings for steam heat.

Plumbing and Sanitary Work.—Board of Education, Oklahoma City, Okla., will receive proposals until June 6 for plumbing and sanitary work in Jefferson School building, according to plans and specifications prepared by Layton, Smith & Hawk, architects; plans may be obtained from architects, Majestic Bldg., Oklahoma City; each bid accompanied by certified check for 5 per cent. of bid; bids to be filed with the Board of Education, Gus A. Elbow, secretary.

Plumbing, etc.—W. J. Stephenson & Son, Rockingham, N. C., want bids on plumbing and wiring for \$16,240 jail building.

Rails.—G. H. Howze Lumber Co., McLain, Miss., wants two to six miles 30-pound relay steel; state prices and quickest delivery on two miles of steel.

Railway Equipment.—Pratt Engineering & Machine Co., Atlanta, Ga., is ready to contract for all equipment for 13-mile standard gauge railway. For specifications, etc., call on Geo. L. Pratt, vice-president, Singer Bldg., New York, June 1 to 10. (See "Sugar Factory.")

Road Construction.—H. L. Pettus, Captain and Quartermaster, War Department, Washington, D. C., will receive bids until June 6 for macadamizing and repairing Government roadway at Richmond, Va.; specifications on file; proposals must be marked "Proposals for Repairs to Richmond Roadway."

Reinforcing.—T. R. Whiteman, Elkins, W. Va., wants prices on reinforcing for concrete.

Reinforcing.—W. J. Stephenson & Son, Rockingham, N. C., want bids on reinforcing for \$16,240 jail building.

Road Construction.—Commissioners' Court of El Paso county, El Paso, Tex., will receive bids until June 13 for construction of asphalt-macadam road from Clint to Faben, Tex., according to plans and specifications on file in office of the County Clerk, a copy of which will be furnished upon deposit of \$5; Albert S. Eyer, County Judge.

Roofing.—Amory Compress Co., L. E. Luckie, president, Amory, Miss., wants prices on roofing.

Sawmill Machinery.—Phillips-Mahoney Company, J. W. Phillips, president, Portsmouth, Va., is receiving bids on machinery for lumber plant; estimated cost \$25,000.

Scales.—Luciano N. Leivas & Bro., 1075 Moreno St., Buenos Aires, Argentina, want to correspond with manufacturers of scales with indicating dials.

Seating.—See "Building Materials, etc."

Sewers.—Board of Affairs, Parkersburg, W. Va., opens bids June 3 for construction of eight-inch sanitary sewer on Gould Ave. from Plum St. west about 500 feet, including necessary (Y) branches, house connections, etc.; plans and specifications on file at office of City Engineer; bids to be accompanied by certified check for \$100, payable to Frank Good, Auditor.

Sewer Construction.—T. C. Hughes, City Engineer, Tulsa, Okla., will receive bids until June 7 for construction of storm sewer on Galveston Ave.; plans, profiles and specifications on file at office of City Engineer; certified check for 5 per cent. of bid.

Sewer Construction.—John Skain, Mayor, Lexington, Ky., will receive bids until June 3 for construction of following sanitary sewers: Maple Ave. from 4th to 5th St., 8-inch sewer with 5-inch connections to curb line, 2 manholes, 1 flush tank and necessary junctions; Jefferson St., Main St. to Maryland Ave., 8-inch sewer with 5-inch connections to curb line, 5 manholes, 1 flush tank and necessary junctions.

Sewer Construction.—City of Ashboro, N. C., will construct sewerage system; date of opening bids not set; J. B. McCrary & Son, Atlanta, Ga., are preparing plans and will have work in charge; H. M. Worth, Mayor.

Sewer Construction.—Commissioners of Sewerage, P. L. Atherton, chairman, Equitable Bldg., Louisville, Ky., will receive bids until June 10 for construction of Section "C," Northeastern Sanitary Trunk Sewer, Contract No. 69, and Section "D," Northeastern Sanitary Trunk Sewer, Contract No. 70; former work will consist mainly of constructing 1830 feet of 24-inch plain concrete sewer, 540 feet of 20-inch vitrified pipe, 909 feet of 18-inch vitrified pipe, including 3299 feet of earth excavation from 2.1 to 15.8 feet deep, about 270 cubic yards of concrete and 1200 cubic yards rock; latter work will consist of building sewer 15 to 22 in. diameter, total length about 3369 feet, and from 5.6 to 12.4 feet deep, and including 20 cubic yards of concrete, 3369 feet of vitrified pipe from 15 to 22 inches diameter, and 700 cubic yards of rock; plans and specifications may be seen at office of Harrison P. Eddy, consulting engineer, 14 Beacon St., Boston, Mass.; each bid to be accompanied by certified check for 7 per cent. of bid, or "bidders' bond," as described in proposal form; J. B. F. Breed, chief engineer of Sewerage Commission.

Sewerage and Drainage.—See "Heating Plant, etc."

Shovels.—See "Plows, etc."

Structural Iron.—T. R. Whiteman, Elkins, W. Va., wants prices on structural iron work for jail.

Stump-puller.—T. H. Martin, consulting engineer, 920 Empire Bldg., Atlanta, Ga., wants powerful quick-operating stump-puller for heavy work on yellow-pine stumps.

Smelting Furnaces.—John M. Holladay, Holladay, Va., wants addresses of manufacturers of electric smelting furnaces; wants prices on furnaces operated by water-power; capacity one to five tons pig-iron or steel.

Sugar Factory.—Pratt Engineering & Machine Co., Atlanta, Ga., is ready to contract for all buildings, machinery, etc., for 130,000 bags per annum "central;" for specifications, etc., call on Geo. L. Pratt, vice-president, Singer Bldg., New York, June 1 to 10. (See "Railway Equipment" and "Water-works.")

Steam Mains, etc.—U. S. Department of Agriculture, office of Secretary, Washington, D. C. Proposals will be received at office of Disbursing Clerk until June 7 for installing complete steam main, high pressure; steam main, low pressure; condensation return main, compressed-air line, and vacuum and

electrical conduits from B St. S. W., between 13th and 14th, to 14th and B St. S. W.; full information furnished upon application to Disbursing Clerk; bids to be addressed to Secretary of Agriculture, James Wilson.

Swimming Pools.—Office of Commissioners of District of Columbia, Washington, D. C. Sealed proposals will be received until June 3 for furnishing necessary labor and material for constructing two swimming pools at the Bathing Beach, D. C.; form of proposal, specifications and necessary information obtained on application to Property Clerk, D. C., Room 320 District Bldg.; Cuno H. Rudolph, John A. Johnston, William V. Judson, Commissioners.

Tanks.—J. M. Johnston, Florence, S. C., wants prices on steel tower tanks.

Tacks.—Luciano N. Leivas & Bro., 1075 Moreno St., Buenos Aires, Argentina, want to correspond with manufacturers of small tacks, Nos. 6 to 16.

Telephone Equipment.—Citizens' Telephone Co., S. B. George, manager, Lexington, S. C., wants prices on telephones and line material.

Tiling.—W. B. Smithson, Pulaski, Tenn., wants prices on 800 square feet tile floor for porch. (See "Building Materials.")

Ties.—See "Cotton Compress Supplies."

Toothpicks.—Luciano N. Leivas & Bro., 1075 Moreno St., Buenos Aires, Argentina, want to correspond with manufacturers of wooden toothpicks.

Telephone Supplies.—Tri-District Telephone Co., Rosby's Creek, W. Va., wants prices on telephone supplies.

Telephone System.—Centerville Telephone Co., Charles Rigg, manager, Centerville, R. F. D. from Wayne, W. Va., will open bids June 22 for construction of 40 miles telephone line (grounded system).

Vacuum Cleaner.—W. W. Cameron, Waco, Tex., wants prices on vacuum cleaner.

Water-works.—City of Ashboro, N. C., will construct water-works system; erect power and pump houses, reservoir and elevated tank; J. B. McCrary & Son, Atlanta, Ga., are preparing plans and will have work in charge; date of bids not set; H. M. Worth, Mayor.

Water-works.—Pratt Engineering & Machine Co., Atlanta, Ga., is ready to contract for all equipment for water-works, including nine miles of pipe line; for specifications, etc., call on Geo. L. Pratt, vice-president, Singer Bldg., New York, June 1 to 10. (See "Sugar Factory.")

Water-works Equipment.—City of Huntsville, Mo., will open bids June 14 for material purchased direct; hydrants, valves, cast-iron pipe and elevated tank and tower; L. G. Knapp & Co., engineers, New York Life Bldg., Kansas City, Mo.

Water-works Material.—F. E. Brill, Mt. Jackson, Va., will open bids June 4 for water-works material. (See construction item under "Water-works.")

Wire Nail Manufacturers.—Henderson Manufacturing Co., Henderson, N. C., wants addresses of manufacturers of wire nails.

Water-works Equipment.—Board of Public Works, J. N. Lipscomb, chairman, Gaffney, S. C., will open bids June 15 for furnishing about nine miles of 6 to 12-inch cast-iron pipe, fittings, hydrants, valves and boxes, erecting pumping station and filtration plant complete, including electrical machinery, heating plant, hydraulic connections, etc., as per plans; also constructing standpipe foundation; specifications may be obtained from Mr. Lipscomb; plans will be on file and can be seen at office of William W. Lyon, consulting engineer, 303 Duval Bldg., Jacksonville, Fla.; certified check for \$1000 to accompany each bid.

Water-works Supplies.—C. M. Carr, Town Clerk, Garvin, Okla., will receive sealed bids on two 200-gallon duplex pumps fitted with pressure-regulating governors, triplex pump and motor, 3100 feet cast-iron water mains, 22 fire hydrants, 8 water gate valves; specifications obtainable from O'Neill Engineering Co., Dallas, Tex.

Wharf Construction.—Port Commissioners, Hugh McCloskey, president, 601-602 Hibernal Bank & Trust Co. Bldg., New Orleans, La., will receive bids until June 14 for construction of William A. Kennaugh wharf, lumber and piling for which will be furnished by board; deposit \$1000, cash or certified check;

plans, specifications, proposal forms, etc., prepared by J. F. Coleman & Co., engineers, on file at office of engineer, A. C. Bell, 606 Hibernal Bank & Trust Co. Bldg., New Orleans, by whom full sets will be furnished on deposit of \$15.

Well Drilling.—Guy R. Johnson, president Fayette Oil & Gas Co., Birmingham, Ala., wants to correspond with well drillers and contractors who furnish their own equipment.

Well-drilling.—Robert S. Cope, care of Reliance Fertilizer Co., 106 Bay St., Savannah, Ga., wants drilled six or eight-inch artesian well, 350 feet to 375 feet deep.

Wheel Machinery.—Oxford Buggy Co., Ox-

ford, N. C., wants prices on wheel-tiring machinery and wheel-boxing machine.

Wharf Construction.—Charles E. Bolling, City Engineer, Richmond, Va., will receive bids until June 7 for construction of pile bulkhead wharf along east shore of James River from Gillies Creek to Nicholson St., and for deepening river bed alongside wharf to channel, in accordance with plans and specifications; information on application to above office; certified check for \$500 to accompany each bid.

Wireworking Machinery.—Ludwig Moll, Hansa-Haus, Dusseldorf 2, Germany, wants to correspond with American manufacturers of wire-working machinery for making bird cages, etc.

INDUSTRIAL NEWS OF INTEREST

Wants Partner.

In order to meet the demand for galvanized-steel fencing and gates in many varieties, of which he is the patentee, R. B. Leatherman of Winchester, Va., desires a partner with money and integrity. Correspondence is invited.

Closes Contract for Expeller Mill.

Among important contract recently secured by the Burruss Engineering Co., Atlanta, Ga., is one from the Batesburg Ginnery of Batesburg, S. C., for an expeller mill. The Burruss Engineering Co. is the sales agent for the Anderson expeller, which has been favorably introduced and is in satisfactory operation in a number of Southern mills.

To Manufacture Vertical Drykilns.

Incorporation of the Morris Manufacturing Co., with offices in the State Bank Bldg., Little Rock, Ark., has recently been effected. This company will manufacture vertical drykilns for lumber, patented by T. C. Morris, and special machinery for sawmills, including, among other products, stacker, cable conveyor and automatic lumber sorter. It is capitalized at \$25,000, and its officers are Gordon Peay, president; T. C. Morris, vice-president and general manager; George Worthen, secretary, and W. T. Morris, treasurer.

Electrical Supplies and Equipment.

Ed Spranley, manufacturers' agent of electrical supplies and equipment, has established an office and salesroom at 823 Perdido St., New Orleans, and will have associated with him W. T. Spranley, formerly of Newman & Spranley, and S. B. Swift, formerly of the Interstate Electric Co. It is Mr. Spranley's intention to represent principally out-of-town manufacturers of electrical supplies and equipment carrying a stock of these lines, and he invites propositions from manufacturers wishing to be represented in his section.

A Contract for New Rails.

An important contract recently awarded the Frank Davies Company, 213-214 Hennen Bldg., New Orleans, provides for furnishing three miles of 40-pound new rails to the Board of Control, State Penitentiary, Baton Rouge, La. The bid of the Frank Davies Company was among those of 40 competitors, located in every part of the country, and its acceptance is indicative of the increasing trade and excellent facilities of this company. The Davies company imports and exports iron and steel and deals in railroad equipment, plantation and compress supplies, rails, portable track, locomotives, cane and logging cars, switches, etc.

Chemical Brick from State Shale.

Basing its belief on practical experience that pure slate shale is a better raw material than coal shale, the Legg Brick Co., B. Mifflin Hood, vice-president and sales manager, 1530-31 Candler Bldg., Atlanta, Ga., manufactures a chemical brick from the first-named material. This brick is said to be insoluble in sulphuric acid and an ideal product for the construction of Glover and Gay Lussac towers. In its manufacture the company has employed an experienced superintendent, and states that it is in a position to satisfactorily fill all orders. Last year it delivered 200,000 chemical brick to the Standard Guano & Chemical Co., New Orleans, and has also supplied the Atlanta Steel Co. and other users.

Indian Asphalt Materials.

Indian asphalt materials for road construction and treatment are claimed to have stood the test of time under all traffic and climatic conditions in all parts of the country. These materials include Indian road oil, liquid asphalt and asphalt binder, and are manufactured expressly for road-making.

ford, N. C., wants prices on wheel-tiring machinery and wheel-boxing machine.

struction which the Ambursen company has under contract includes: Dam 45 feet high and 700 feet long in Newfoundland; dam 48 feet high and 470 feet long in Wisconsin; two dams, respectively 54 feet high and 450 feet long and 80 feet high and 550 feet long, in Minnesota; dam 86 feet high and 680 feet long in Oregon; small dams in Iowa and Kentucky. Seven of these dams include a power-house in the bulkhead. The time of construction on each will be about eight months, with the exception of the Oregon dam. This will require a year.

TRADE LITERATURE.

Dixie Seals, Stamps and Supplies.

A folder issued by the Dixie Seal & Stamp Co., Atlanta, Ga., illustrates and describes some of the products which this company manufactures and sells. These include stamps, seals, stencils, dater, numbering machines, metal badges, desk supplies, etc.

Plymouth Twine News.

Plymouth Twine News for May is now being circulated and contains several articles of interest to twine and cordage users. This publication is issued by the Plymouth Cordage Co., North Plymouth, Mass., manufacturer of ropes for transmission purposes, twine and other products.

Cameron Engineering Co.'s Products.

Illustrating and describing the products of the Cameron Engineering Co., 154 and 156 Berriman St., Brooklyn, N. Y., is a pamphlet which this company has issued. The company's products include overhead tramways, trolleys, switches, cranes, overhead handling and weighing devices, etc.

The J-M Roofing Salesman.

The first number of the J-M Roofing Salesman, which will be published on the 28th of each month, has been issued for May. This publication is by the H. W. Johns-Manville Co. of New York, Cleveland and other cities, and is a companion publication of the J-M Packing Expert, which is issued on the 14th of each month by the same company.

Cotton Chats for May.

Cotton Chats for May, a publication by the Draper Company, Hopedale, Mass., presents interesting front and rear views of that company's exhibit at Mechanics' Fair Bldg., Boston, Mass., from April 25 to 30. The Draper Company has recently developed a cylindrical ball with square ends, and a sample ball of yarn, with the ball warper, was also included in its exhibit.

Eureka Water Softeners and Purifiers.

Hangers showing complete and sectional views, with comprehensive descriptive data, of the Eureka water softener and purifier are being distributed by the Dodge Manufacturing Co., Mishawaka, Ind. The Dodge company manufactures this product, and the hangers referred to illustrate in colors the process by which it operates. This system of water softening and purification is well known in Europe and America.

Drykiln Equipment.

Lumber manufacturers and others who are interested in drykiln equipment are invited to investigate the products and facilities of the Grand Rapids Veneer Works, Grand Rapids, Mich. This company sells roller-bearing trucks, spreaders, doors, hygrodecks, pipe, fittings, headers, traps, thermometers, rails, steel standards, valves, etc., which are illustrated and described in a folder which the company is distributing.

Steel Mine Timbers.

A technical pamphlet on steel mine timbers has recently been issued by the Carnegie Steel Co., general offices, Carnegie Bldg., Pittsburgh, Pa. This pamphlet has been thoroughly revised and presents comprehensive data, tables, specifications, etc., for the use of mining engineers. The Carnegie Steel Co. manufactures steel timbers for mines and has made numerous important installations in mines throughout the country.

The "Kewannee" Unions.

Wherever any union is used it implies the possibility of disconnecting the joint at some future time, otherwise an ordinary coupling would be used. In unions where the joint is iron to iron the parts will rust together after being used for some time, making the process of disconnection hard and inconvenient; but where the union has a brass to iron thread connection at the ring there will be no rust, and the joint can be disconnected and reconnected as often as possible without injury to the union. Embodying the brass to iron joint are the "Kewannee" unions, manufactured by the National Tube Co., general sales office, Frick

Bldg., Pittsburg, Pa. This company is distributing a pamphlet illustrating and describing them, and is also distributing correction sheet No. 2 for catalogue H, issued in 1909.

The Hayward Buckets.

The manufacturer of Hayward buckets claims that these products will do more and faster work than other buckets and will handle any excavating or digging problem, no matter what the material is, from mud to boulders of rock. The Hayward orange-peel and clamshell buckets are manufactured by the Hayward Company, 50 Church St., New York, and are illustrated and described in catalogues 35 and 36 and other literature the company is distributing.

"Exide" Battery in Emergency Service.

Bulletin No. 124, issued by the Electric Storage Battery Co., Allegheny Ave. and 19th St., Philadelphia, presents illustrative and descriptive data relative to the performance of the "Exide" battery for emergency service in central-station work. It is only recently that the "Exide" battery has been adapted to this class of service, but it is claimed that its performance has been eminently satisfactory.

The Concrete Route.

A pamphlet entitled "The Concrete Route" recommends that the safest, speediest and most economical road to success in the use of cement is through the double cones and past the spiral blades of the Smith concrete mixer. This mixer is manufactured by the T. L. Smith Company, general sales office, Majestic Bldg., Milwaukee, Wis., and is claimed to meet the three cardinal requirements of modern business conditions—reliability, rapidity and economy.

Concrete Specialties.

A pamphlet issued by the Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, illustrates and describes a number of concrete specialties, prominent among which are the Knees socket and Wedmore plug for attaching shafting, sprinklers, etc., in concrete buildings. Other devices illustrated are the Wedmore wall clip, of which it is said 1,000,000 were used in the Baltimore (Md.) sewage-disposal plant; Wedmore spring-lock spacer for accurately spacing bars, and other products.

The Morse Products.

A large and complete catalogue illustrating and describing the various products of the Morse Twist Drill & Machine Co., New Bedford, Mass., is now being distributed. This company manufactures increase and constant twist drills, reamers, chucks, milling cutters, taps, dies, machinery and machine tools, etc. Among the new tools illustrated are No. 4 drill case, short-shank sockets and sleeves, tang gauge, sleeves with clutch drive, solid collets, floating collets, reamer drills, expanding reamers with Morse taper shanks, four-grooved chucking reamers and others.

Corrugated Metal Culverts.

Builders of highways, railroads and other construction in which culverts are used will be interested in a catalogue which has been issued by the Kentucky Culvert Manufacturing Co., Buechel, Ky. This company manufactures the American ingot iron culvert, and claims that the material used in their manufacture is not the common "commercial" or "tin-shop" grade of galvanized steel, but a sheet that takes an entirely different method of manufacture from the time the ore goes into the melting furnace until the sheet receives its final galvanizing and hot rolling.

Barrett's Creo-Carbofin.

Dealing with the preservation of lumber and telling how its life may be lengthened, etc., is a pamphlet issued by the Barrett Manufacturing Co. of New York and other cities. This company has long supplied wood preservative materials, and its chemists have studied both the preservatives and preserved timber for many years. As a result of this study a liquid oil has been produced from coal-tar which is claimed to possess preservative powers to a high degree. This product is known as Creo-Carbofin, and is described, with illustrations of its application, in a pamphlet which the company has issued.

A Better Day's Work.

In presenting the fourth edition of "A Better Day's Work," a publication by the Burroughs Adding Machine Co., Detroit, gratification is expressed at the cordial reception of the slight effort to reflect a part of the work done by the Burroughs adding and listing machines in handling accounting

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systems in all parts of the world. These machines are claimed to have increased the sum of human comfort and happiness in offices where they have been used, and the practical suggestions presented in the book have been culled from the experience of many users of them.

Electric Storage Battery Literature.

"How to Light Your Home by Electricity" is the title of a pamphlet issued by the Electric Storage Battery Co., Allegheny Ave. and 19th St., Philadelphia. This pamphlet comprehensively treats the subject, and by illustrative and descriptive data shows how small isolated lighting plants, consisting of gas engine, generator and battery, may be conveniently used by farmers and others who live beyond the radius of service offered from central stations. The Electric Storage Battery Co. has also issued a pamphlet entitled "The Story of the Storage Battery," which presents some interesting data relative to the company and its position in the storage-battery field.

The Clark Meter Boxes.

Since the advent of the water meter the need of a suitable housing for the device has become more and more apparent. The basement installation, it is claimed, has proven unsatisfactory, but in the Clark meter box the outside installation has been made practicable, giving to the water department a systematic setting of meters throughout the entire system. This box was designed for the perfect housing of the water meter, making practicable the universal installation of meters outside of the premises. Its inception and perfection, it is claimed, was made possible through a practical water-works experience extending over a period of 20 years, with a constant view to the thorough protection of the water meter from frost and damage of all kinds, meeting all climatic conditions. The Clark meter boxes and appliances are manufactured by H. W. Clark & Co., 115 South 17th St., Mattoon, Ill., and are illustrated and described in catalogue M which the company is distributing.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., June 1.

The Baltimore stock market during the past week was at first dull, but toward the close of the period showed activity, especially in Cotton Duck issues and United Railways funding 5s and scrip, the business in the latter being caused by the payment of interest on the United income bonds in funding 5s. The activity in Cotton Duck was the result of rumors of the formation of a holding company, coupled with improved business outlook. There was a double holiday on Saturday and Monday, which reduced the volume of business.

In the trading United Railways common sold from 12½ to 13½; do. trust certificates, 13½ to 13¾; do. incomes, 61½ to 59, ex-coupon; do. funding 5s, 82½, and ex-interest 81½ to 81; do. scrip, 84 to 80½, with last sale at 81; United 4s, 85½ to 85%; Consolidated Gas, Electric Light & Power common, 60; do. preferred, 88; Consolidated Gas 4½s, 92½; Seaboard Company common, 23½ to 24; do. first preferred, 76; Seaboard 4s, stamped, 84; do. three-year 5s, 90½; do. 10-year 5s, 99½ to 99¾; do. adjustment 5s, 73% to 73½; Consolidated Cotton Duck, 5% to 7; do. preferred, 18½ to 22½; Mt. Vernon-Woodberry Cotton Duck 5s, 60 to 73%, with last sale at 72½; G.-B.-S. Brewing 1sts, 41½.

Bank of Baltimore stock sold at 122½ to 122; Mercantile Trust, 142; Baltimore Trust, 171½ to 172; Colonial Trust, 27½; Fidelity & Deposit, 148 to 150; Maryland Casualty, 89.

Other securities were traded in thus: Baltimore City 3½s, 1940, 93; do. do. 1930, 93; do. do. 1928, 93; Canton Company, 124; George's Creek, 12½ to 12; Norfolk & Portsmouth Traction 5s, 84½ to 83½; Northern Central Railway stock, 129 to 128; United States Steel, 82½ to 80%; Carolina Central 4s, 91 to 91½; Jamison Coal & Coke, George's Creek 5s, scrip, 91½ to 90½ to 92; Jamison Coal & Coke, George's Creek 5s, 90; Houston Oil common, 6½; do. preferred, 37; Atlantic Coast Line Consolidated 4s, 93%;

Western Maryland 4s, 84½; Fairmont Coal 1st 5s, 95½; Fairmont & Clarksburg Traction 5s, 96; Savannah, Florida & Western 5s, 110½; Detroit United 4½s, 81; Norfolk Railway & Light 5s, 99½ to 99; Consolidation Coal, 111½; Seaboard & Roanoke 5s, 105½; Charleston & Western Carolina 5s, 104; Georgia & Alabama Consolidated 5s, 102½.

SECURITIES AT BALTIMORE.**Last Quotations for the Week Ended June 1, 1910.**

Railroad Stocks. Par. Bid. Asked.
Atlantic Coast of Conn. 100 ... 245
Charleston Consolidated. 50 ... 30
Georgia Sou. & Fla. 100 ... 30
Seaboard Company Common. 100 ... 23
Seaboard Company 1st Pfd. 100 ... 74
Seaboard Company 2d Pfd. 100 ... 43
United Ry. & Elec. Co. 50 ... 13 13½

Bank Stocks.

Citizens' National Bank. 10 ... 38 39
Drovers & Mech. Nat. Bank. 100 ... 225
First National Bank. 100 ... 142½ 145
Maryland National Bank. 20 ... 23 ...
Merchants' National Bank. 100 ... 175 ...
National Bank of Baltimore. 100 ... 124 ...
National Howard Bank. 10 ... 13½ 15 ...
National Marine Bank. 30 ... 42 43 ...
National Mechanics' Bank. 10 ... 27 28 ...
National Union Bank of Md. 100 ... 121 ...
Western National Bank. 20 ... 36½ 37½ ...

Trust, Fidelity and Casualty Stocks.

American Bonding Co. 25 ... 80
Baltimore Trust & Guarantee. 100 ... 175
Fidelity & Deposit. 50 ... 148 150
Fidelity Trust. 100 ... 210 ...
Mercantile Trust & Deposit. 50 ... 141 145

Miscellaneous Stocks.

Ala. Con. Coal & Iron. 100 ... 25 ...
Con. Cotton Duck Common. 50 ... 6½ 7 ...
Con. Cotton Duck Pfd. 50 ... 22½ 23 ...
Con. Gas, Elec. Lt. & P. Com. 100 ... 60 61 ...
Con. Gas, Elec. Lt. & P. Pfd. 100 ... 57 58 ...
Consolidation Coal. 100 ... 111 113½ ...
G.-B.-S. Brewing Co. 100 ... 1 2 ...
Georges Creek Coal. 100 ... 12 12½ ...
Mer. & Miners' Trans. Co. 100 ... 83 85½ ...

Railroad Bonds.

Atlantic Coast Line 1st 4s, 1952.... 93½ 93¾
Atlan. Coast Line Conv. Deben. 4s. 98½ 100 ...
At. Coast Line Com. 4s, Cfrs. 5-20s ... 90 ... 92½
Balto. & Harrisburg 5s, 1936.... 104 ...
Balto. & Harrisburg Ext. 5s, 1938. 104 ...
Carolina Central 4s, 1949.... 91½ 91½ ...
Charleston & West. Car. 5s, 1946.... 104 ... 105 ...
Coal & Coke Railway 5s. 90 ... 96 ...
Coal & Iron Railway 5s, 1920.... 101½ ...
Col. & Green. 1st 6s, 1916.... 106½ 107 ...
Florida Southern 4s, 1940.... 90½ 91½ ...
Georgia & Alabama 5s, 1943.... 102 102½ ...
Georgia, Car. & North. 1st 5s, 1929.... 105 105½ ...
Georgia Pacific 1st 6s, 1922.... 112 113 ...
Maccon, Dublin & Savannah 5s.... 96 98 ...
Piedmont & Cum. 1st 5s, 1911.... 99 ...
Potomac Valley 1st 5s, 1941.... 106½ ...
Raleigh & Augusta 1st 6s, 1926.... 115 ...
Richmond & Dan. Gold 6s, 1915.... 105½ 106 ...
Savannah, Fla. & West. 5s, 1934.... 109½ 110% ...
Seaboard Air Line 4s, 1950.... 84 ...
Seaboard 4s, Stamped.... 83½ 84 ...
Seaboard Air Line 5s, 10-year 1911.... 99½ 99% ...
Seaboard Air Line 5s, 3-year.... 99½ ...
Seaboard Adjustment 5s.... 73 73% ...
Seaboard & Roanoke 5s, 1926.... 105½ 107 ...
Virginia Midland 2d 6s, 1911.... 100½ 100% ...
Western Maryland 4s, 1952.... 84½ 84% ...
Western N. C. Con. 6s, 1914.... 105 105½ ...
West Va. Cent. 1st 6s, 1911.... 100% ...
Wilmington & Weld. Gold 5s, 1935. 110 110% ...

Street Railway Bonds.

Balto. City Pass. 5s, 1911.... 100 ...
Balto. Trac. 1st 5s, 1929.... 108 ...
Balto. Trac. (N. B. Div.) 5s, 1942.... 112 ...
Charleston Con. Elec. 5s, 1939.... 92 ... 95 ...
City & Suburban 5s (Wash.), 1948.... 102 ...
Fairmont & Clarksburg Trac. 5s.... 96 ...
Knoxville Trac. 1st 5s, 1928.... 104 ...
Lexington Railway 1st 5s, 1949.... 91 ...
Norfolk & Portsmouth Trac. 3s.... 83 ... 84 ...
Norfolk Railway & Light 5s.... 99 ...
Norfolk Street Railway 5s, 1944.... 107 ...
United Railways 1st 4s, 1949.... 85½ ...
United Railways Inc. 4s, 1949.... 58½ 59 ...
United Railways Funding 5s.... 80½ 81½ ...

Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s.... 81 81½ ...
Atlanta Gas 1st 5s, 1947.... 102 ...
Baltimore Electric 5s.... 88 ...
Consolidated Gas 6s, 1910.... 100 ...
Consolidated Gas 5s, 1939.... 105 106½ ...
Con. Gas, Elec. Lt. & P. 4½s.... 81½ ...
Fairmont Coal 1st 5s.... 95 95% ...
G.-B.-S. Brewing 1st 4s.... 41½ 42 ...
G.-B.-S. Income 5s.... 7½ 8½ ...
Mt. Vernon-Woodbury Cot. Duck 5s.... 72 72½ ...

SOUTHERN COTTON-MILL STOCKS.**Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending May 30.**

Bid. Asked.
Abbeville Cotton Mills (S. C.) 75 ...
Aiken Mfg. Co. (S. C.) 90 ...
American Spinning Co. (S. C.) 160 ...
Anderson Cotton Mills (S. C.) 63 66 ...
Arcadia Mills (S. C.) 100 ...
Arkwright Cotton Mills (S. C.) 100 ... 103 ...
Augusta Factory (Ga.) 60 65 ...
Avondale Mills (Ala.) 116 ...
Belton Mills (S. C.) 137 140 ...
Brandon Mills (S. C.) 99 103 ...
Cannon Mfg. Co. (N. C.) 125 ...
Cabarrus Cotton Mills (N. C.) 130 136 ...
Chadwick Mfg. Co. (N. C.) Pfd. 100 ...
Chiquola Mfg. Co. (S. C.) 180 ...
Clifton Mfg. Co. (S. C.) 106 ...
Clinton Cotton Mills (S. C.) 120 130 ...
Columbus Mfg. Co. (Ga.) 98 98 ...
Courtney Mfg. Co. (S. C.) 100 ...
Dallas Mfg. Co. (Ala.) 99 92 ...
Darlington Mfg. Co. (S. C.) 84 92 ...
D. E. Converse Co. (S. C.) 100 ...
Drayton Mills (S. C.) 96 105 ...
Eagle & Phenix Mills (Ga.) 117 ...
Easley Cotton Mills (S. C.) 175 185 ...
Enoree Mfg. Co. (S. C.) 57 60 ...
Enoree Mfg. Co. (S. C.) Pfd. 96 100 ...
Enterprise Mfg. Co. (Ga.) 80 85 ...
Exposition Cotton Mills (Ga.) 200 ...

Gaffney Mfg. Co. (S. C.) 80 85 ...
Gainesville Cotton Mills (Ga.) 75 90 ...
Glenwood Cotton Mills (S. C.) 120 ...
Gluck Mills (S. C.) 100 102 ...
Granby Cot. Mills (S. C.) 1st Pfd. 26 46 ...
Graniteville Mfg. Co. (S. C.) 160 165 ...
Greenwood Cotton Mills (S. C.) 58 61 ...
Grendel Mills (S. C.) 114 117 ...
Hartsville Cotton Mill (S. C.) 175 ...
Henrietta Mills (N. C.) 160 175 ...
Inman Mills (S. C.) 104 106 ...
King Mfg. Co. J. P. (Ga.) 90 93 ...
Lancaster Cotton Mills (S. C.) 120 ...
Lancaster Cot. Mills (S. C.) Pfd. 97 100 ...
Langley Mfg. Co. (S. C.) 120 127 ...
Laurens Mills (S. C.) 127 ...
Limestone Mills (S. C.) 160 170 ...
Lockhart Mills (S. C.) 78 85 ...
Lockhart Mills (S. C.) Pfd. 99 100 ...
Loray Cotton Mills (N. C.) 95 97½ ...
Marlboro Cotton Mills (S. C.) 90 95 ...
Miller Mfg. Co. (S. C.) 102 ...
Mollohan Mfg. Co. (S. C.) 106 110 ...
Monaghan Mills (S. C.) 155 ...
Monarch Cotton Mills (S. C.) 106 107 ...
Newberry Cotton Mills (S. C.) 125 130 ...
Ninety-six Cotton Mills (S. C.) 140 150 ...
Norris Cotton Mills (S. C.) 125 130 ...
Olympia Cotton Mills (S. C.) 90 ...
Orr Cotton Mills (S. C.) 106 109 ...
Pacolet Mfg. Co. (S. C.) 101 ...
Pacolet Mfg. Co. (S. C.) Pfd. 99 102 ...
Pelzer Mfg. Co. (S. C.) 169 ...
Piedmont Mfg. Co. (S. C.) 175 177 ...
Poe Mfg. Co. F. W. (S. C.) 170 180 ...
Washington Mills (Va.) 28 ...
Sibley Mfg. Co. (Ga.) 71 78 ...
Spartan Mills (S. C.) 131 140 ...
Trion Mfg. Co. (Ga.) 130 140 ...
Tucupan Mills (S. C.) 300 ...
Union-Buffalo (S. C.) 1st Pfd. 74 80 ...
Union-Buffalo (S. C.) 2d Pfd. 17 25 ...
Warren Mfg. Co. (S. C.) 107 ...
Warren Mfg. Co. (S. C.) Pfd. 106 110 ...
Washington Mills (Va.) 28 ...
Washington Mills (Va.) Pfd. 106 110 ...
Whitney Mfg. Co. (S. C.) 122 ...
Wiscasset Mills (N. C.) 135 ...
Woodruff Cotton Mills (S. C.) 124 126 ...
Woodside Cotton Mills (S. C.) 102 105 ...
Watts Mills (S. C.) 90 95 ...
Williamston Mills (S. C.) 120 125 ...

Banking Facts.

Some weeks ago the MANUFACTURERS' RECORD mentioned the publication of a common-sense little book by Mr. Humphrey Robinson of Louisville, Ky., entitled "A Simple Explanation of Modern Banking Customs." The volume, written from the standpoint of a man who had had some years' experience in general business and other years' experience in a large city bank, is a handy device for straightening out the difficulties encountered by a novice in doing business with banks and at the same time is calculated to remove apprehensions that the misinformed frequently have about the place of bankers in human economy. The book was received with such favor that another edition, selling for 25 cents net, has been brought out by Small, Maynard & Co. of Boston.

Bankers' Conventions.

At the annual convention of the Tennessee Bankers' Association, held at Chattanooga May 24 and 25, the following officers were elected to serve for the ensuing year: President, Dwight M. Armstrong, Memphis; treasurer, Neill S. Wright, Huntingdon; vice-presidents, Ralph W. Brown, Knoxville; B. F. Allnut, Cedar Hill; J. D. McDowell, Memphis; chairman executive council, Wesley Drane, Clarksville.

FINANCIAL CORPORATIONS.

Ala., Geiger.—The Bank of Geiger, capital \$50,000, is reported organized, and expects to begin business within 60 days; organizers, W. L. Waller and John H. Plason.

Ark., Dermott.—Charter is granted to the Exchange Bank & Trust Co., previously reported; paid-up capital, \$35,000; authorized, \$50,000. J. J. McCloy is president, R. F. Clarke secretary and W. D. Trotter treasurer.

Ark., Buckner.—The Lafayette County Bank of Buckner has filed articles of incorporation; capital \$10,000; incorporators, J. D. Bourland, president; R. E. Gantt, first vice-president; J. D. Hanson, second vice-president; J. M. Bolger, secretary; J. C. Hutcheson, Wallace Massey, W. S. Nix and J. B. Hardcastle.

Ark., Little Rock.—The People's Life Insurance Co. of Little Rock, which succeeds the People's Mutual Accident & Health Insurance Co., has been licensed to do business. Rev. Ben Cox of Little Rock is president and Dr. B. C. Bain secretary.

Ga., DeSoto.—The DeSoto Banking Co., capital \$25,000, has made application for a charter; incorporators, George W. Bagley, Sr. and Jr., W. C. Herring, D. D. Jones, F. Luke, E. S. and J. E. Ferguson, A. M. Barron and John D. Walker.

Ga., Brewton.—Chartered: Farmers and Merchants' Bank of Brewton; capital \$25,000; incorporators, James L. Keene and others.

Ga., Canton.—The Bank of Cherokee, capital \$25,000, is reported being organized by W. J. Webb and L. E. Tate of Canton.

Ga., Eton.—The Bank of Eton, capital \$25,000, has been granted a charter; incorporators, C. C. Keith, J. H. Keith, A. J. Mason, Walter M. Harris, Dr. S. A. Brown, R. H. Tyler and J. P. Gregory, all of Murray county.

Ga., Savannah.—The Real Estate Bank is reported to have organized by electing directors thus: Jacob S. Collins, president; Robert M. Hicks, vice-president; Carl Menzel, second vice-president; John E. Foy, chairman of the board; Thos. Nugent, Benj. Weitz, Leonard Carter, J. Lawton Hiers, P. Alston Waring, Wm. H. Davidson, John Oshie, Joseph A. Logan and Wm. A. Collins. Grover C. Paulsen is cashier, Wm. F. Lyles teller, Miss Mary Nugent cashier of the savings department, and Edward S. Elliott attorney.

Ga., Savannah.—Commercial Life & Casualty Insurance Co. of Savannah, capital \$200,000, chartered by James Hill, W. W. Marshall, W. W. Williamson, Robert M. Butler, A. Hinis, Sigo Myers and others.

Ga., Savannah.—The Safety Investment Co., capital \$30,000, has elected officers thus: John E. Foy, president; Thomas Nugent, vice-president; Robert M. Hicks, treasurer; A. J. Cookley, secretary.

Ga., Stillmore.—Chartered. Farmers Exchange Bank of Stillmore; capital \$25,000; incorporators, John D. Walker and others.

Ky., Pewee Valley.—The Pewee Valley State Bank is being organized by C. B. Long, Jr., Wm. Ross, C. A. Calvert, Powhatan Woldridge, Harry Hudson, W. C. Nuckles, Fred Hopkins, S. M. Melone and James Foley, who are directors. Horace Pollock of Germantown will be cashier, it is reported.

Ky., Stanford.—The State Bank & Trust Co., capital \$15,000, is reported organizing. W. L. McCarty, president; J. S. Rice, vice-president, and it is said J. W. Hutcheson will be cashier.

La., Baton Rouge.—Approved: The Louisiana National Bank of Baton Rouge; capital \$150,000. N. S. Dougherty, Joe Gottlieb, W. P. Connell, H. L. Puckett and Charles McVeigh are the organizers.

La., Mt. Herman.—Mt. Herman Bank organized; capital \$10,000 paid in; Dr. J. M. Brock, president; L. V. Bankston, vice-president, and W. G. Buckley, cashier.

Md., Baltimore.—An official letter says that the American Mortgage & Investment Co. will not be incorporated until the full capital of \$500,000 has been subscribed, which it is expected will be within a short time, when it will be organized. It does not propose to erect a building. It will advance money on real-estate mortgages, the principal and interest of which will be guaranteed.

Md., Baltimore.—The First National Life Insurance Co., authorized capital \$250,000, has organized with officers thus: C. E. Greenamyer of Pittsburgh, president; J. R. Duvall, vice-president; D. W. Hollister, secretary; W. L. Mott, treasurer, and Harry E. Garner, assistant secretary and treasurer; Archibald H. Taylor, general counsel.

Md., Baltimore.—The Plymouth Building and Loan Association, capital \$1,000,000, has filed articles of incorporation; incorporators, George A. Sohl, Max Gichner, J. Milton Davis, Harry H. Davis, E. Everett Davis, J. Frank Harmdu, Harry R. West, Charles M. Winterling, Logan S. Miller, A. Plad Caldwell, Jr., and Thomas W. Carey.

Miss., Clarksdale.—The Continental Bank & Trust Co. is reported incorporated with \$250,000 capital.

Miss., Meridian.—The Lauderdale County Abstract Co. has been chartered with \$5000 capital. The incorporators are C. C. Dunn, R. A. Collins, C. F. Woods and A. B. Amsl, all of Meridian, Miss.

Mo., St. Louis.—The Audit & Bond Co. of America, capital \$30,000, is reported incorporated by J. M. Hays, W. L. Wilder and M. F. Finch.

Mo., St. Louis.—Forest Trust Co. incorporated; capital \$10,000. Stockholders are Thos. W. Murphy, 99% shares; William L. Bechtold, Clifford E. House, Frank Perry and L. Claude Perry, 1 share each.

N. C., Andrews.—Official: The bank of Andrews Incorporated; capital \$15,000; incorporators, J. L. Smathers, J. Q. Barker, J. Glenn Hickerson, D. S. Russell and J. W. Brown, all of Andrews, N. C. Business is to begin July 1.

N. C., Andrews.—The Bank of Andrews has filed articles of incorporation; capital \$15,-

[For Additional Financial News, See Page 90.]

The Merchants National Bank
Established 1835
South and Water Sts., BALTIMORE, MD.
DOUGLAS H. THOMAS, President,
WM. INGLE, Vice-Prest. and Cashier.
J. C. WALTER, Asst. Cashier.
JOHN B. H. DUNN, Asst. Cashier.
Capital, \$1,500,000
Surplus and Profits, \$900,000
Deposits, \$12,000,000

Accounts of Banks, Bankers, Corporations and Individuals solicited. We invite correspondence.

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We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.

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CROSS CREEK COAL COMPANY 8% Gold bonds, total issue \$250,000. All have been disposed of to investors and bankers in different parts of the country, including Saco, Maine; Boston, Mass.; Rochester, N. Y.; Westfield, Olean, Fredonia and Buffalo, N. Y.; Franklin, Connersport, Pittsburgh, Smethport, Shamokin and Port Allegany, Pa.; Columbus, Dayton and Springfield, Ohio; Northfork, Welch and Bluefield, W. Va.; Roanoke, Va.; Nashville, Knoxville, Jasper, Chattanooga and South Pittsburg, Tenn.; Atlanta, Ga.; Lowell, Mass.; East Orange, N. J., and Washington, D. C., until now there are but \$30,000 of them left. These bonds are first lien on 7000 acres of the best coal properties in Tennessee, and \$75,000 of this money is being spent on an up-to-date coal works with a capacity of about 1000 tons a day. Particulars will be furnished from the office, 1006 Mutual Life Building, Buffalo, N. Y. P. S.—A bonus of preferred stock will be given with the bonds.

GEO. M. CLARK
Auditor and Public Accountant

Room 315 James Building
CHATTANOOGA, TENN.

INVESTMENT SECURITIES

Southern Stocks and Bonds
Municipal and Corporation
Cotton Mill Stock a Specialty

WM. S. GLENN Broker - SPARTANBURG, S. C.

CAPITAL \$1,000,000 SURPLUS, \$2,500,000
RESOURCES MORE THAN \$11,000,000

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C. D. FENHAGEN, Secretary-Treasurer

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The National Exchange Bank
OF BALTIMORE, MD.

Hopkins Place, German and Liberty Sts.

Capital, \$1,000,000

July 15, 1908. Surplus and Profits. \$671,631.60

OFFICERS:

WALDO NEWCOMER, President.
SUMMERFIELD BALDWIN, Vice-Pres.
R. VINTON LANDIS, Cashier.
C. G. MORGAN, Asst. Cashier.

Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

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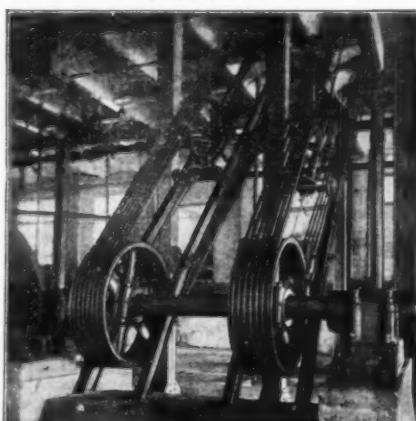
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TRANSMISSION ROPE

MANUFACTURERS' RECORD.

[June 2, 1910.]

000; incorporators, J. L. Smathers of Murphy, J. W. Andrews and others.

N. C., Booneville.—A new bank, capitalized at \$10,000, is reported being organized by H. M. Crumel, Clara Transon, W. T. Fletcher, Wade Shore, S. E. Shugart and Dr. Thad. Shore, all of Booneville, and W. J. Byerly of Mt. Airy.

Okla., Elmer.—Official: Farmers' State Bank of Elmer incorporated; capital \$10,000; will begin business about June 1. The directors are J. A. Henry, president, Altus, Okla.; W. H. Craig, vice-president, Elmer, Okla.; W. H. Neville, J. H. Dunaway and W. T. Haley of Elmer; cashier, E. S. Craig of Elmer.

Okla., Oklahoma City.—The Southwest Security Co. has been chartered with \$500,000 capital; directors, Joseph O. Moore, Charles H. Garnett and Thomas E. Kirby.

Okla., Snyder.—Approved: The First National Bank of Snyder, Okla.; capital \$25,000, J. E. Moore, O. B. Kee, John J. Willis, E. S. Willis and R. A. Huber are the organizers.

S. C., Columbia.—The South Carolina Insurance Co., capital \$100,000 and surplus \$100,000, incorporated by Lewis W. Parker, J. J. Lawton, A. M. Law, Edwin W. Robertson, W. D. Melton, August Kohn, B. F. Taylor, J. L. Minnaugh, Jos. Norwood, John J. Selbels and Edwin G. Selbels. Business is to begin immediately with Edwin G. Selbels, president; August Kohn, vice-president; T. P. Meighan, treasurer; John J. Selbels, secretary, and Chas. J. Bruce, assistant secretary.

S. C., Belton.—The Home Building and Loan Association has been granted a commission; capital \$300,000; organizers, J. B. Adger, L. A. Stansell and L. L. Rice.

S. C., Belton.—The Home Building and Loan Association incorporated; capital \$300,000; president, Jno. B. Adge; vice-president, I. W. Cox; secretary and treasurer, L. W. Stansell, all of Belton; attorney, Leon L. Rice of Anderson, S. C.

S. C., Richland.—The Richland Building and Loan Association, capital \$200,000, is reported to have been granted a commission; petitioners, William Barnwell, Thomas S. Bryan, William K. McDuffie and William D. Melton, all of Columbia.

Tenn., Bethpage.—The Bethpage Bank, promoted by R. A. Durham, M. B. Perdue and O. B. Sparkman, is expected to be ready for business about September 1.

Tex., Brownwood.—The Coggins National Bank has been approved; capital \$100,000; organizers, N. A. Perry, J. A. Coggins, S. R. Coggins, C. H. Bencini and H. T. Williams.

Tex., Brookeland.—The Brookeland State Bank is reported organized with \$10,000 capital; directors, J. A. Watson and A. M. Jones, Hemphill; L. S. Bell, J. H. Bell and L. L. Bradshaw, Brookeland. Dr. J. D. Butler of Remig will be president.

Tex., Buffalo Gap.—Official: The First State Bank of Buffalo Gap was chartered; capital \$10,000; will begin business about June 1; incorporators, R. C. Lyons, L. C. Cox, Carl W. Henslee and N. J. Tims of Buffalo Gap, and Henry James of Abilene, Tex.

Tex., Dublin.—A State bank is reported organized with \$50,000 capital. A. L. Self, recently of Brownwood, Tex., is said to be interested.

Tex., Goodnight.—Chartered: Goodnight State Bank; capital \$20,000; incorporators, J. B. Storm, S. S. Dodson, L. N. Henry and F. M. Longhine.

Tex., Georgetown.—A new State bank is reported organized with \$25,000 capital. C. E. Jones is mentioned as president; M. C. Jeffry, vice-president, and J. H. Blake, Jr., cashier.

Tex., Lyons.—The Lyons State Bank, capital \$10,000, incorporated by O. F. Lyons, George A. Lewis and Lorenz Zeiss.

Tex., Plainview.—The Third National Bank of Plainview has been approved; capital \$100,000; incorporators, L. A. Knight, L. G. Wilson, H. M. Burch, J. E. Lancaster and R. W. O'Keefe.

Tex., Riesel.—Farmers and Merchants' State Bank of Riesel chartered with capital of \$10,000 by J. F. Burton, Lee R. Herrington, J. S. England, F. H. Miller and W. W. Mitscher.

Tex., Sterling City.—Approved: The First National Bank of Sterling City; capital \$80,000. J. S. Cole, Sterling City, Tex.; W. L. Foster, J. T. Davis, Jr., H. Q. Lyles and R. W. Foster are the organizers.

Tex., Winona.—The Winona State Bank, capital \$10,000, has been incorporated by A. F. Butler, J. McClung, P. T. McClung and others.

Va., Montvale.—The Bedford County Bank is reported organized; capital \$10,000; Dr. R. S. Price, president; Capt. N. C. Luck, first

vice-president, both of Montvale; R. W. Peery of Buchanan, second vice-president; R. A. Gilliam, also of Buchanan, cashier; Maj. P. F. Brown of Blue Ridge Springs, chairman of the board; business to begin July 1.

Va., Roanoke.—According to press dispatches, Washington, Baltimore and West Virginia capitalists have purchased the American Savings Bank of Roanoke and will operate it as a national bank with \$500,000 capital. C. T. P. Cooper of Salem will be president.

Va., Roanoke.—A dispatch says the American Savings Bank of Roanoke has changed hands and will be converted into a national bank with \$500,000 capital and with C. T. P. Cooper of Salem, Va., as president; Dr. George N. P. Cole was the majority stockholder.

Va., Roanoke.—The Roanoke Realty Investment Co., capital \$10,000, is reported organized with George W. Roper, president; Frank H. Tuxbury, vice president and treasurer, and M. L. Strange, secretary.

Va., Roanoke.—Official: The Merchants and Farmers' Bank of Castlewood incorporated; capital \$20,000; business began May 20 with R. A. Fletcher, president; J. M. Porter and R. C. Meade, vice-presidents, and R. C. Honoker, cashier.

Va., Fayetteville.—The Fayetteville Building and Loan Association, capital \$50,000, has been chartered by J. T. Grose, W. H. Ramsey, J. E. Coleman, Floyd Keller, Will A. Anderson, S. T. Carter, W. A. Edler, H. W. Claypool, C. L. Phipps and W. M. Reynolds, all of Fayetteville, W. Va.

NEW SECURITIES.

Ala., Anniston.—The First National Bank of Cleveland, O., was the successful bidder for the \$60,000 of 5 per cent. 30-year school and funding bonds at par and interest.

Ala., Decatur.—Reported that all bids received May 17 for the \$25,000 of 5 per cent. 30-year city building bonds were rejected and new bids for same are asked until June 7.

Ark., Gilham.—School bonds are reported voted.

Ark., Fort Smith.—Bids will be received until 2 P. M. June 13 by Roy M. Johnston, secretary of the Fort Smith and Van Buren district, for from \$550,000 to \$650,000 of 5 per cent. bridge bonds, the exact amount to be later determined.

Ark., Selma.—According to press dispatches steps are being taken to sell the Dallas county road bonds recently voted.

Ark., Thomasville.—Official: \$800 of 5 per cent. 20-year schoolhouse bonds authorized; denomination \$1000; bids will be opened July 2. L. M. Trawick is Mayor; W. E. Mosely, clerk; A. S. Johnson, attorney.

Ark., Huntington.—Reported voted: \$15,000 of school bonds.

Ark., Little Rock.—The \$40,000 of Drainage District No. 1 (Dark Hollow) bonds were sold at par, it is reported, to the S. R. II. Robinson & Sons Construction Co. of St. Louis.

Ark., Murfreesboro.—Reported voted: \$20,000 of school bonds.

Ark., Russellville.—Official: \$20,000 of 6 per cent. school-building bonds of Russellville special school district No. 14 are to be put on the market. Address J. A. Clifton, secretary School Board.

Ark., Texarkana.—Reported that the town has voted to borrow \$100,000 for erection of high school.

Fla., Pensacola.—The official proclamation for the bond election June 14 is for \$150,000 street improvements, \$100,000 sewer and \$50,000 market bonds; total \$300,000.

Fla., St. Augustine.—The proposed election on sewer bonds will be for \$100,000, instead of \$75,000, as was contemplated.

Fla., St. Petersburg.—July 19 an election is to be held to vote on \$100,000 of water-works, sewer, water-front and fire-station bonds. Address The Mayor.

Fla., Graceville.—Voted: \$14,000 of water-works and \$4000 of electric-light bonds.

Ga., Gainesville.—Official: Bids will be received until June 25 by R. D. Mitchell, Mayor, for \$100,000 of 30-year bonds, \$70,000 being for water plant, \$12,500 for public-school building, \$12,500 for sewer improvement and \$5000 for enlarging and improving present light plant.

Ky., Bowling Green.—Official: Bids will be received until noon June 27 for \$20,000 of public-improvement renewal 4 per cent. 30-year bonds; denomination \$500. Giles E. Townsend is Mayor.

Ky., Falmouth.—On June 10 Pendleton county will sell to the highest bidder \$40,000

of 4½ per cent. refunding bonds. John B. Colvin is County Attorney at Falmouth, Ky.

La., Lake Charles.—According to press dispatches, the School Board has asked the City Council to authorize \$100,000 of school bonds.

Md., Baltimore.—Of the \$2,400,000 of 4 per cent. city stock offered May 23 but \$400,000 remains to be sold.

Md., Centerville.—Voted: Bonds for sewerage system.

Md., Denton.—Bids will be received until 2 P. M. June 14 for \$3000 of 4½ per cent. bonds of Caroline County, denomination not less than \$500.

Md., Frederick.—Hambleton & Co. and Baker, Watts & Co. have been awarded jointly at 100.33 and interest the \$64,000 of 4½ per cent. 20-40 year funding bonds.

Md., North East.—The First National Bank of North East has been awarded \$7500 of 5 per cent. 30-year funding and refunding bonds of North East at 105.125.

Md., Chestertown.—Hambleton & Co. of Baltimore have purchased at \$10,044 the second series of \$10,000 of 5 per cent. Chestertown water improvement bonds.

Miss., Aberdeen.—Bids were received by J. M. Acker, Mayor, June 1 for \$10,000 of 5 per cent. refunding bonds.

Miss., Jackson.—June 7 bids will be opened for \$600,000 of 4 per cent. 20-year bonds for building and repairing State institutions.

Miss., Yazoo City.—The election in Yazoo county June 4 is for only the issue of \$50,000 of funding bonds; a vote will not then be taken on the contemplated issue of \$30,000 of bonds for repairing and enlarging the courthouse.

Mo., Carrollton.—An official is quoted as saying that the \$50,000 of 4 per cent. 5-20 year school-building bonds offered February 5 have been sold at par to Wm. R. Compton & Co. of St. Louis.

Mo., Independence.—Thirty thousand dollars of Independence city hall bonds are reported sold to a St. Louis purchaser.

Mo., Kansas City.—A special election is to be held July 11, according to press dispatches, to vote bonds for improvements, amount not to exceed \$3,100,000.

Mo., Salem.—A. G. Edwards & Sons of St. Louis, it is reported, have been awarded \$25,000 of 5 per cent. 5-20 year school-building bonds.

Mo., Springfield.—The question of holding an election to vote on \$100,000 of city hall, \$75,000 of sub-fire-station, \$50,000 of septic-tank and \$10,000 of street-improvement and drainage bonds is reported under consideration. R. E. Lee is Mayor.

Mo., Tipton.—Reported voted: \$17,500 of light and power plant bonds.

N. C., Ashboro.—Official: Bids will be received until 8.30 P. M. June 23 for \$50,000 of 5 per cent. 30-year water-works and sewerage bonds. Address Hal M. Worth, Mayor, and Board of Commissioners.

N. C., Raleigh.—Of the \$3,430,000 of State funding bonds, \$1,218,500 have been sold to 43 parties at prices ranging from par to 4 above.

N. C., Raleigh.—An official letter confirms the report that bids will be received until noon June 10 by William W. Willson, City Clerk, for \$125,000 of 5 per cent. municipal improvement bonds. The bonds have been favorably passed upon by the Supreme Court of North Carolina.

Okla., Carney.—The \$10,000 of 6 per cent. 20-year school-building bonds have been sold to R. J. Edwards of Oklahoma City at private sale.

Okla., El Reno.—The proposition to purchase the El Reno Water Co.'s plant having been defeated, according to a dispatch, the city will now sell the \$250,000 of 5 per cent. water and sewer bonds voted some time ago. J. A. Le Bryer is Mayor.

Okla., Kingfisher.—Press dispatches state that the date for receiving bids for the \$15,000 of 5 per cent. 10-20 year high-school bonds has been postponed until 8 P. M. June 6.

Okla., Lawton.—Bids will be received until 8 P. M. June 20 for \$240,000 of water-works and \$40,000 of sewer 5 per cent. 25-year bonds; denomination \$1000; dated July 1, 1910. Address W. R. Julian, City Clerk.

Okla., Medford.—A. J. McMahan of Oklahoma City has, according to press dispatches, been awarded at par \$30,000 of 5 per cent. 25-year water and light bonds.

Okla., Medford.—According to press dispatches, petition is to be made to the School Board for an election to vote on \$45,000 of school-building bonds.

Okla., Oklahoma City.—Bids will be received until 5 P. M. June 13 by Bob Parman, City Clerk, for \$200,000 of park, \$150,000 of fire station and equipment, \$10,000 of po-

lice alarm system and \$15,000 of street-equipment 25-year bonds; interest 4½ or 5 per cent.

Okla., Oklahoma City.—Bids will be received by Gus A. Elbow, secretary Board of Education, until 8 P. M. June 6 for \$150,000 of ward-school building and \$150,000 of high-school building 4½ and 5 per cent. 20-year bonds.

Okla., Sapulpa.—The City Council is reported negotiating for the sale of \$315,000 of 5 per cent. water, sewer and fire bonds to the home Savings Bank of Detroit, Mich.

S. C., Columbia.—Reported that bids are to be asked for \$850,000 of 40-year refunding bonds. Address The Mayor.

S. C., Clover.—The Bank of Clover is reported to have purchased at par \$10,000 of 5 per cent. 20-year school-building bonds.

S. C., Greenville.—Official: Bids will be received until 8.30 P. M. July 5 for \$100,000 of street, \$40,000 of sewer and \$60,000 of 5 per cent. bonds. Address A. E. Sussex, Clerk and Treasurer.

S. C., St. Matthews.—The Bumpus-Stevens Bond Firm of Detroit, Mich., is reported to have purchased at \$15,000 the \$15,000 of school-building bonds.

Tenn., Jackson.—June 7 bids will be opened for \$600,000 of 4 per cent. 20-year bonds for building and repairing State institutions.

Tex., Amarillo.—The \$125,000 of 5 per cent. 20-40 year paving, sewer and fire-station bonds voted March 23 have been approved by the Attorney-General, and they will now be issued and offered for sale.

Tex., Anson.—Voted: \$10,000 of fire-station and city-hall bonds.

Tex., Austin.—The Attorney-General is reported to have approved the following bonds: Reeves county common school district No. 1, schoolhouse bonds, \$20,000, 30s at 5 per cent.; Conroe independent school district schoolhouse bonds, \$3000, 20s at 5 per cent.; Bell county common school district No. 66, schoolhouse bonds, \$10,000, 20-40s at 5 per cent.; Bell county common school district No. 1, schoolhouse bonds, \$27,000, 10-40s at 5 per cent.; also school building bonds, \$16,000, 20s at 5 per cent., optional either in 15 or 30 years; also city of Paris street improvement bonds, \$60,000, 10-50s at 5 per cent.; also water-works extension bonds, \$20,000, 10-50s at 5 per cent.; also bonds for two suburban fire stations, \$5000, 10-50s at 5 per cent.; \$20,000 of 6 per cent. 20-40 year Memphis sewer bonds; \$20,000 of 5 per cent. 5-40 year Killeen Independent school district bonds; \$20,000 of Pecos high-school bonds; \$20,000 of 5 per cent. 30-year bonds of Reeves county common school district No. 1; \$8000 of Cooper independent school district bonds.

Tex., Alvarado.—Bids will be received by J. B. Poindexter, Mayor, until noon June 6 for \$18,000 of 5 per cent. 5-40 year school bonds; denomination \$500.

Tex., Beaumont.—Press dispatches state that the Mayor will probably order an election to vote on \$25,000 of school bonds.

Tex., Brackettville.—June 6 an election is to be held in Klaney county, it is reported, to vote bonds for courthouse.

Tex., Coleman.—June 11 an election is to be held to vote on \$20,000 of electric-light plant bonds.

Tex., Dublin.—Voted: \$30,000 of high-school bonds.

Tex., El Paso.—An election is called for June 21 to vote on \$375,000 of 5 per cent. 20-40 year water-works bonds. W. F. Robinson is Mayor.

Tex., Goresback.—Reported voted: \$25,000 of school-building bonds.

Tex., Grapeland.—Reported that \$10,000 of school-building bonds are to be issued.

Tex., Greenville.—Reported voted: \$100,000 of street-improvement bonds.

Va., Harrisonburg.—Reported that the \$35,000 of 5 per cent. 1-10 year refunding bonds were awarded as follows: Rockingham Bank, \$10,000; First National Bank, Harrisonburg, \$15,000.

Tex., Italy.—Reported voted: \$8000 of Italy independent district school bonds.

Tex., Itasca.—Arrangements are reported being made to issue \$35,000 of school bonds. W. H. Coffman is president Board of Trustees of Itasca independent school district.

Tex., McKinney.—June 23 an election is to be held to vote on \$128,000 of good-roads bonds.

Tex., McLean.—The Commissioners of Collin county have ordered an election for June 23 to vote on \$128,000 of road bonds, covering 40 miles.

Tex., McLean.—Bids will be opened June 3 for \$25,000 of 5 per cent. 40-year schoolhouse bonds. J. C. Biggers is president and C. E. Donnell, secretary.

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Tex., Plainview.—The Attorney-General has approved \$20,000 of 5 per cent. 30-40-year Plainview schoolhouse bonds.

Tex., Silverton.—Reported that an election is soon to be held to vote on \$25,000 of schoolhouse bonds.

Tex., Stamford.—Reported voted: \$10,000 of paving bonds.

Tex., Timpson.—The question of holding an election to vote on \$15,000 of water-works bonds is reported under consideration.

Va., Manassas.—Reported voted: \$30,000 of water-system bonds.

Tex., Roby.—Bids will be received until noon June 8 by T. H. Mayfield, president Board of Education, for \$14,500 of 5 per cent. 30-40-year building bonds.

Tex., Stamford.—Reported voted: \$10,000 of street bonds.

Va., Orange.—May 31 an election is to be held to vote on \$10,000 of water-works bonds.

Va., Portsmouth.—Bids will be received until noon June 30 for \$250,000 of 4½ per cent. 30-year street and school-improvement bonds. Address L. P. Slater, City Clerk.

Va., Pulaski.—Press dispatches state that Cutter, May & Co. have been awarded the \$70,000 of 5 per cent. Pulaski county magistrate district road bonds.

W. Va., Fairmont.—Reported voted: \$69,000 of water-works improvement and \$6000 of 4th St. bridge bonds.

W. Va., Huntington.—Official: Bids will be received until noon June 23 for \$80,000 of 5 per cent. 30-year building-site, \$75,000 of 5 per cent. 30-year improvement and \$25,000 of paving 6 per cent. bonds. Address Board of Commissioners, K. L. Hamilton, clerk.

At Gainesville, Ga., bids will be received until June 25 for \$100,000 of 30-year improvement bonds. *Further particulars will be found in the advertising columns.*

At Lawton, Okla., bids will be received until 8 P. M. June 20 for \$280,000 of 5 per cent. municipal bonds, of which \$200,000 will be sold in blocks of \$50,000 each and the rest in blocks of \$40,000 each. *Further particulars will be found in the advertising columns.*

At Bowling Green, Ky., bids will be received until noon June 27 for \$29,000 of 4-percent. 30-year public-improvement renewal bonds. *Further particulars will be found in the advertising columns.*

At Asheboro, N. C., bids will be received until 8:30 P. M. June 22 for \$50,000 of 5-percent. 30-year water-works and sewerage bonds. *Further particulars will be found in the advertising columns.*

At Huntington, W. Va., bids will be received until noon June 23 for \$80,000 of 5 percent. 30-year building site, \$75,000 of 5 percent. 30-year improvement and \$225,000 of 6 percent. paving bonds. *Further particulars will be found in the advertising columns.*

FINANCIAL NOTES.

The First National Bank of Washington, N. C., will, it is reported, increase its capital from \$50,000 to \$100,000.

The Bank of McColl at McColl, S. C., according to press dispatches, will increase its capital from \$25,000 to \$50,000.

The First State Bank of Bogata, Tex., is reported to have amended its charter increasing its capital from \$10,000 to \$25,000.

The Lavaca County National Bank of Hallettsville, Tex., is reported to have changed its name to the First National Bank of Hallettsville.

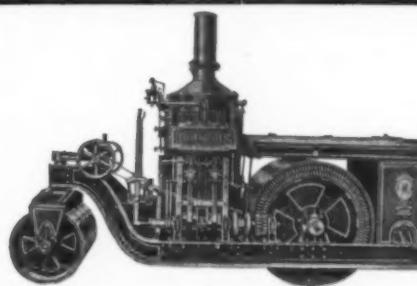
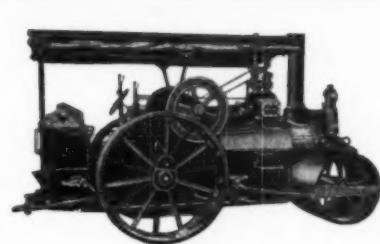
The City Bank & Trust Co. of Birmingham, Ala., has, it is reported, filed a certificate changing its name to the Guarantee Bank & Trust Co.

The Lumbermen's National Bank of Houston, Tex., which recently took over the business of the Central Bank & Trust Co., according to press dispatches, will absorb the American National Bank.

Press dispatches state that the Citizens' Life Insurance Co., with headquarters at Louisville, Ky., and the Citizens' National Life Insurance Co., with headquarters in Birmingham, Ala., have been consolidated under the name of the Citizens' Life Insurance Co., with offices in Birmingham, Atlanta, and St. Louis.

At the annual meeting of the United States League of Local Building and Loan Associations held at Charlotte, N. C., May 25 and 26, the following officers were elected for the ensuing year: S. Wittkowsky of Charlotte, president; G. A. Follin of Winston-Salem, first vice-president; Alexander Webb of Raleigh, second vice-president; John Dunn of Newbern, third vice-president, and E. L. Keesler of Charlotte, secretary-treasurer.

THE IROQUOIS IRON WORKS STEAM ROLLERS



THE AMERICAN STANDARD
FIFTEEN YEARS EXPERIENCE
BUFFALO, N. Y.

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"Criminal indifference" you say. And you are right. But how much worse is it than what you are doing every day? You have read these advertisements of the HARTFORD FIRE INSURANCE COMPANY for a year or more, telling you that you ought to know all about the company that carries your fire insurance, but have you done anything about it? Many have, but the majority of policy holders have done nothing about the selection of a company. They are still "fiddling."

In the history of fire insurance in America, a large majority of the fire insurance companies organized have failed or retired from business. To be insured in a company like the HARTFORD, that has been in business a hundred years and will be in business a hundred years from now, costs no more than to be insured in one that may go out of business next week.

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Any agent or broker can get you a policy in the HARTFORD if you tell him to do so. Don't be a "fiddler" in the face of fire. Cut out, fill in and mail the coupon. DO IT NOW.



1910.

(Name of Agent or Broker.)

(Address.)

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STATEMENT JANUARY 1, 1910

Capital,	\$2,000,000.00
Liabilities,	14,321,953.11
Assets,	23,035,700.61
Surplus for Policy Holders,	8,713,747.50

Name

Address

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W. D. DUNNING

96 W. Water St.
SYRACUSE, N. Y.



BE SURE YOUR SHIPPING TAGS

BEAR THIS PATCH

It denotes the presence of great strength, unusual toughness, and perfect writing surface.

DENNISON'S TAGS are weather proof, friction proof, loss proof. Heavy shipments place

great responsibility on shipping tags. There's no risk with Dennison's.

Write our nearest store for samples and information

Dennison Manufacturing Co.

THE TAG MAKERS

BOSTON

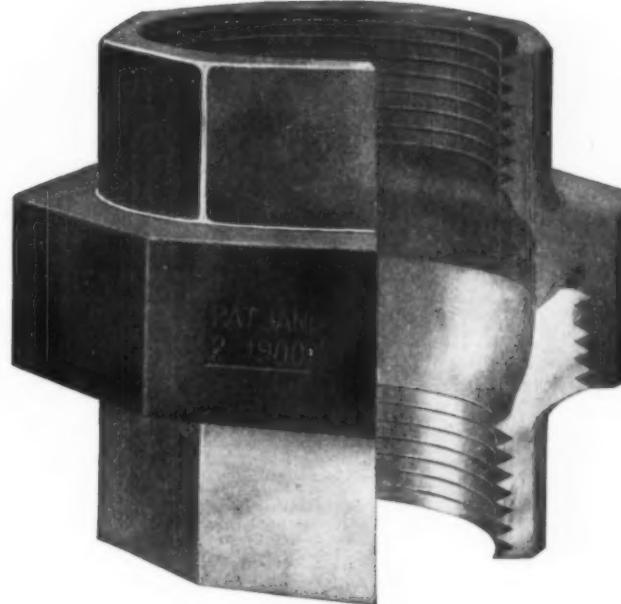
NEW YORK

PHILADELPHIA

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ST. LOUIS

Tried a Few "Kewanee" Unions, Now Wants No Other Kind



"The Union with no inserted parts"

¶ In most cases a trial only will convince the user of the merits of the "KEWANEE" UNION.

¶ For example: One of our representatives was calling on a Master Mechanic of a large paper manufacturer in Northern New York, and he makes the following report:

"My samples were new to Mr. —, except the union, of which he has a few in use. He has always used ordinary unions, but needed a few unions a short time ago, and the other mill sent him some "KEWANEE" unions, which pleased him, and now he wants to use only our unions. He was well impressed with all my samples, and hereafter will specify "KEWANEE" unions on his requisitions."

¶ Among the features of the "KEWANEE" UNION which induced this Master Mechanic to favor its exclusive use are the following:

- 1.—The brass to iron thread connection will not rust together—and iron to iron ultimately will.
- 2.—The brass to iron ball joint seat does away with the necessity of a gasket, insuring a tight joint even if the pipes to be joined are somewhat out of line.
- 3.—There are no inserted parts to become loosened by expansion or contraction.
- 4.—Each fitting is tested with 100 pounds compressed air pressure under water. Only those passing with a record of 100 per cent are put on the market.

¶ The Whole Kewanee Family is described in our new illustrated catalog under that title. It will help you solve your union difficulties. Send for it today.

¶ "Kewanee" Unions and Specialties are sold by jobbers in all sections of the country. If your dealer does not carry them in stock, write us and we will give you the name of one in your neighborhood who does.

NATIONAL TUBE CO. General Offices, Frick Building
PITTSBURGH, PA.

District Sales Offices

Atlanta.
Portland,

New Orleans,
Salt Lake City,

Pittsburgh,
Denver,

St. Louis,
Philadelphia,

Chicago,
San Francisco,

New York,
Seattle,

Export Representatives: U. S. Steel Products Export Co., New York City.

Classified Opportunities

AGENTS AND SALESMEN WANTED

WANTED—Manufacturers' agents and salesmen to sell our special lubricants for gears, ropes, automobiles, etc., on commission; attractive opening for right parties. Write for catalogue and terms. The Ohio Filler & Shield Co., Columbus, Ohio.

AGENCIES WANTED

SOUTHERN agencies for building specialties wanted. Write the Southern Fireproofing Supply Co., Inc., Sales Agents for Herpringbone Steel Lath, 1224 H St. N. W., Washington, D. C.

MACHINERY and equipment manufacturers desiring representation in Southeast by aggressive young man address "Sales Engineer," care Manufacturers' Record, 52 Broadway, New York, N. Y.

PARTY thoroughly acquainted with conditions all over Europe and with splendid connections desires to obtain export agency for a first-class American manufacturer. Address No. 634, care Manufacturers' Record.

SITUATIONS WANTED

WANTED—Position with cotton mill by man of 32; experienced in Ala., Carolina, Georgia and Miss. cottons; good office man and competent to take charge of entire cotton department of mill; excellent references. Address No. 624, care Manufacturers' Record.

WANTED—Position by electrical engineer as superintendent of power plant or office assistant with manufacturing company; an technical graduate, with experience at Westinghouse and General Electric Co.; location preferred, South or Middle West. Address No. 636, care Manufacturers' Record.

ARCHITECT, civil engineer, varied practical experience, desires charge of buildings, grounds and mechanical installation of large industrial plant, corporation property or estate, maintenance, repair. Improvements and extensions designed, supervised, etc. Wills, 1021 Simpson St., New York city.

OPEN FOR ENGAGEMENT—Sales or Advertising Manager—Private Secretary.—Broad experience in systematizing, coaching salesmen, direct selling and mail-order work. Last employer writes of me: "He is a man of analytical mind, of original and advanced ideas, possessing the initiative, tact and perseverance to carry same into successful operation; his systems for selling, cataloging, recording, follow-up work, etc., are thoroughly practical and effective; he digests the fundamental and vital advertising facts and presents them in a forcible, brilliant and convincing manner, and as a correspondent in general and specialty work he has scarcely a peer. His work here has been a continuance of his fine record." New York experience; will go anywhere. Chas Baldy, Checkerton, Brockton, Mass.

HELP WANTED

WANTED—By the Ficklin Spoke & Handle Co., an experienced, efficient manager; big inducements to the right man. Address J. L. Carruth, Ficklin, Ga.

WANTED AT ONCE—Twenty-five (25) first-class machinists; steady employment; standard wages. Westbrook Elevator Co., Danville, Va.

MECHANICAL ENGINEER with technical education, familiar with power plant, machinery and tools, transmission equipment, etc., for a large sheet-metal-working plant in middle West employing 1000 men; should have knowledge of tools and dies for blanking, forming and drawing sheet steel, brass and tin plate; force includes 60 die-makers, and equipment includes a large number of stamping and drawing presses, automatic screw machines, machine tools, electrical equipment, etc. Address No. 631, care Manufacturers' Record, stating fully qualifications, experience and salary expected.

EDUCATIONAL

RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical and Electrical engineering, and General Science, leading to the degrees of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), and Bachelor of Science (B.S.). Special courses in engineering and science. Splendidly equipped new engineering laboratories. Send for catalogues to Registrar.

ENGINEERS

P. BYRNE, Expert Mineral Engineer.—Information furnished about mineral lands; investigations and reports made on the same. 1801 Second Ave., P. O. Box 111, Birmingham, Ala.

BANKS

THE CITIZENS' BANK OF NORFOLK, Va., capital \$300,000, surplus \$375,000, solicits accounts of banks, firms, corporations and individuals.

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 24 lines. Allow seven words per line. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year, as follows: 100 lines, 18c. per line; 300 lines 16c. per line; 500 lines or more, 15c. per line.

THE PALMETTO NATIONAL BANK, Columbia, S. C., capital \$250,000, solicits accounts of banks, firms, corporations and individuals either commercial or savings accounts.

COMMERCIAL STATE BANK, Birmingham, Ala. State depository. Prompt attention to Alabama collections.

BANK OF ENSLEY, Ensley, Ala., capital \$100,000, surplus and profits \$50,000. Individual responsibility more than a million dollars. Collections made promptly.

BUSINESS OPPORTUNITIES

INVESTORS come to Gadsden, Ala., the new steel center of the South; great opportunities. The North Alabama Real Estate Co., Gadsden, Ala.

WANT TO CORRESPOND with party interested in brick plant; have the shale, fuel, water, location and market. W. M. Kelly & Co., Waco, Texas.

WANTED—Partner with money and integrity to supply the demands for my galvanized steel fencing and gates in endless varieties in carload lots. R. B. Leatherman, Patentee and Proprietor, Winchester, Va.

A SPLENDID OPENING for a man with some office ability and small capital. Write International Exchange Association, Anniston, Ala.

PARTIES with valuable gypsum and lignite deposits near railroad in Central Texas would interest capital to develop same; splendid fuel and labor facilities. A. G. McDonald, Beaumont, Texas.

OWNERS of small cordage mill would be glad to dispose of half interest; no very large capital is necessary, and the proper person could get in now on very favorable basis. Address No. 632, care Manufacturers' Record.

WANTED—Advertisers everywhere to use advertising slips, 3x6, good paper, good printing, 150 words or less, 98 cents per 1000, postage paid; samples free. Hays the Printer, McComb, Miss.

WANTED—Manufacturers' agents in all sections of the country to send us plans and specifications for estimates on slate and tile roofing, on a liberal commission arrangement. Address Kansas City Slate & Tile Roofing Co., 21st and Forest Ave., Kansas City, Mo.

CASH FOR YOUR BUSINESS OR REAL ESTATE.—No matter where located, I bring buyers and sellers together. Write me today if you want to buy, sell or exchange any kind of property or business anywhere at any price. Advice and consultation free. Terms reasonable. Established 1881. Address Frank P. Cleveland, Real Estate Expert, 976 Adams Express Building, Chicago, Ill.

FIRE AND FACE BRICK OPPORTUNITY.—A company located in Southern Illinois making brick and having a fine deposit of clay requires the services of an expert brickmaker, and desires a practical man or company with small amount of money to join it. The opportunity is unusually good. Refer to File 20,606. M. V. Richards, Land and Industrial Agent, Southern Railway, 1300 Pennsylvania Avenue, Washington, D. C.

LOCATIONS

GEORGIA'S FIVE - MILLION - DOLLAR - ROCK COUNTY.—If you are thinking of changing your location to the South, investigate Sumter county, the heart of Georgia's richest agricultural section; crops 1800 aggregating \$5,000,000 in value; cotton, corn, oats, hay, fruits, vegetables, tobacco; finest lands in Georgia at \$10 to \$30 an acre. If interested, send for pamphlet and further information to Thos. Gamble, Jr., Sec. Board of Trade, Americus, Ga.

HOTELS

NEW EXCHANGE HOTEL, block of Union depot and postoffice, Waco, Texas; remodeled and refurnished; every provision for guests' comfort; best service. A. D. Adams, Prop'r.

HOTEL WANTED

AUSTIN, TEXAS, has the best location for a fine summer and winter resort hotel in the South. This is a much-needed improvement to Austin, and it is one that will be a paying from the start. Beautiful scenery, fishing, rowing, boating, and the finest drives in the country. Full particulars will be furnished on application to Will L. Vining, Secretary Austin Business League, Austin, Tex.

INDUSTRIES WANTED

BRICK AND TILE FACTORY

WANTED—Brick and tile factory to locate at Avant, Osage county, Oklahoma; immense body of fine shale, affording supply for generations; soft running water free from alkali or other injurious ingredients; greatest supply of natural gas in State at 4 cents per thousand cubic feet; good railroad facilities; free shale for three years, thereafter nominal royalty; free factory site; absolutely no cash bonus. This proposition is probably best in Southwest. Scott Braden & Co., Oklahoma City, Oklahoma.

COTTON MILL

COLEMAN, TEXAS, wants a cotton mill located there, and wants to get in correspondence with people who can put it in and do the work. We are located in the center of a fine cotton-producing country and have good railroad facilities for handling the raw material and finished product. This county was twelfth in the production of cotton in the State of Texas in 1908. We can control from this and adjoining counties 250,000 bales and can get 400,000 if we go after it. Call on or address Coleman Commercial Club, Coleman, Texas.

CANNING FACTORY

CANNING FACTORY.—Fine opening for a canning, preserving and pickle factory for canning all kinds of vegetables, putting up pickles and making catsups of various kinds, in town of 4500 population, with three trunk lines of railway, surrounded by fine farming lands producing all kinds of vegetables and many kinds of fruits, especially figs and oranges. Nothing of the kind here at present. Address Ten Thousand Club, Bay City, Texas.

CAN FACTORY

WHY DON'T YOU manufacture shipping cans in Houston, Texas? Great opportunity; large quantities shipped in for local consumption; one plant alone consumes 100 carloads annually; other consumers are six coffee-roasting plants, two wholesale preserving plants and two wholesale drug houses; truck and fruit growers also large consumers. The right time to get in is now. Write for information to Adolph Boldt, Secretary Houston Business League, Houston, Texas.

WOODWORKING PLANTS

ELDORADO, ARK., has liberal cash bonuses to give substantial manufacturing plants. We want woodworking plants of all kinds; have unlimited supply of raw material, cheap labor and good railroad facilities. Address Eldorado Industrial League, L. L. De Cou, Secretary.

FURNITURE FACTORY

FURNITURE FACTORY.—Free site and liberal stock subscriptions for location of furniture factory of any kind. Abundance of raw material and unexcelled transportation facilities. Address Chas. R. Rowe, Secretary Lufkin Progressive League, Lufkin, Texas.

VENEER PLANT

MOBILE offers the best opportunities in the South for manufacturers. Veneer plants can secure locations close to their material and get cheap rates. Stumpage is close at hand. For information address the Central Trust Co. of Mobile, Mobile Ala., capital and surplus, \$325,000.

GLASS FACTORY

ATLANTA, TEXAS, WANTS A GLASS FACTORY.—We have an unlimited quantity of glass sand that analyzes over 99 per cent silica; natural gas in any quantity at satisfactory price; salt and lime manufactured close by; plenty of timber and water and other material; free site, free sand 20 years, exemption from city taxation 10 years, free artesian water to the first factory; transportation and rates all right. Write for full particulars on this and other factory propositions. Great opportunities. Cass County Industrial League, Atlanta, Texas.

STEAM LAUNDRY

ITASCA, TEXAS, a town of 3500 people, with a trade territory containing a population of 15,000, wants an up-to-date steam laundry with sufficient capacity to handle the business; country is peopled by prosperous, progressive people, who are strong believers in "home industry." Itasca has \$150,000 cotton mill, \$125,000 oil mill, roller mills, light plants, a large woman's college, will soon begin the erection of a \$35,000 high-school building, and has a great deal of money invested in churches. Address Board of Trade, Itasca, Texas.

PAPER BOX FACTORY

CLEVELAND, TENN., desires a paper-box factory. Address 1613 Ocoee street, Cleveland, Tenn.

DRUGS AND DRY GOODS

FINE OPENING for wholesale drug business, also wholesale dry goods business; three-fourths of a million people within radius of 100 miles, in a territory only one-fifth developed, but being developed rapidly; first-class shipping facilities; best quality of water, cheap fuel and high-grade citizenship. Address Abilene 25,000 Club, Box No. 637, Abilene, Texas.

PEANUT OIL MILL

YOAKUM, TEXAS, offers an inviting field for the establishment of a peanut-oil mill. Correspond with W. W. McVea, Secretary Commercial Club, Yoakum, Texas, reference to inducements offered for such an enterprise.

MISCELLANEOUS

A GOOD LOCATION for a hosiery mill, overall factory, iron foundry and similar enterprises; ample railroad facilities; inducements offered to the right parties. For information address the Stamford Commercial Club, Homer D. Wade, Secretary, Stamford, Texas.

QUANAH wants a cotton mill, meat-packing plant, shoe factory; large amount of stock ready to be taken or bonus given for any of these enterprises; four railroads; immense distributing territory; city growing 25 per cent. annually. Chamber of Commerce, Quanah, Tex.

FREE SITES and concessions on taxes, water and fuel given to factories to locate in McAlester, Oklahoma, the manufacturing city of the Southwest; cotton, fire clay, brick shales, iron, limestone, lumber and many other raw materials. Ask the Commercial Club, McAlester, Oklahoma.

SNOW HILL, MD., wants factories and canneries; cheap labor; no unions; no strikes; rich farming country; cheap raw material; railroad and water facilities; beautiful, healthy town; living expenses low; factories located here always prosper. Address Dr. John L. Riley, Secy. Board of Trade.

FACTORIES WANTED.—Special inducements for manufacturing plants, particularly small industries, using wood, cotton or iron raw materials; mild healthful climate; cheap freights, fuel, labor and living expenses. We mean business and will do our part. Business League, Columbus, Miss.

VICTORIA, TEXAS, head of navigation of Guadalupe River; center of cotton, corn, truck and citrus fruit growing district of South Texas; country rapidly developing; opportunities for many industries. If interested in the coastal section of Texas, write for booklet "D" to the Secretary of the Progressive League.

"TAMPA IS THE TOWN TO TIE TO."—Gateway to Gulf; nearest important American port to Panama canal; doubling population every four years; 100 per cent. city of South; big opportunities for investor, manufacturer, homesucker; tourists' paradise. For literature address W. B. Powell, Secretary Board of Trade, Tampa, Fla.

MANUFACTURERS' OPPORTUNITY.—Free sites; no taxes; cheap natural gas; cheap coal; abundant water supply; best transportation; good town; opportunities for manufacture of furniture, woodenware and novelties, glass, tile and pottery, overalls, iron and steel products, carriages, etc. Write Board of Trade, Grafton, W. Va.

HOUSTON NEEDS a flour mill; free site on the great Houston Ship Channel; also free site for a hardwood manufacturing plant; unlimited raw material at hand; water transportation and seventeen rail lines, and the distributing center for the entire Southwest. Write Adolph Boldt, Secretary Houston Business League, Houston, Texas.

DAVENPORT, OKLA., located at crossing of Santa Fe and Frisco railroads, wants manufacturing establishments; has natural gas, good water, schools and churches; in center of largest cotton-growing county in Okla.; excellent shale for brick and tile plants; creamery and ice plant also needed. For information address Commercial Club, Davenport, Okla.

CLINTON, OKLA., wants packing plants, cotton mills, wholesale and jobbing houses of all kinds, manufacturing plants, brick plant, cement plant, saws and door factory, overall factory. Clinton, Okla., offers you first-class shipping facilities; freight rates that will compete with any town in the Middle States territory; best undeveloped jobbing territory in the U. S. today; seven railroad outlets; exemption from municipal taxes, etc. Write Secretary Commercial League.

MANUFACTURING SITES FREE in the progressive State of Oklahoma, in the town of Arkoma, adjoining Fort Smith, and connected by an electric railway. Water rates free. Shale, natural gas, brick material and pure water, 200 feet higher than Fort Smith. Manufacturers' paradise in the way of cheap materials. Water and railway transportation. Rich bottom lands of 2000 acres; could be cut up in 20, 30 and 40-acre farms for trucking. In center of the great coal beds of Arkansas and Oklahoma. Within a radius of 250 miles of 22 per cent. of the standing hardwoods of the United States. Town lots for sale. For further information write Hopkins & Murray, 800-803 First National Bank Building, Fort Smith, Arkansas.

